

ALASKA EMS GOALS

A Guide for Developing Alaska's Emergency Medical Services System

Mark S. Johnson, MPA, Chief

Emergency Medical Services Section

Peter M. Nakamura, MD, MPH, Director
Division of Public Health

Karen Perdue, Commissioner
Department of Health & Social Services

Tony Knowles, Governor
State of Alaska

February, 1996

Fourth Edition

ALASKA EMS GOALS

A Guide for Developing Alaska's Emergency Medical Services System

*Tony Knowles
Governor, State of Alaska*

*Karen Perdue
Commissioner, Department of Health & Social Services*

*Mark S. Johnson, MPA
Chief, Section of Community Health & Emergency Medical Services*

*Charles F. Lean, EMT-I
Chair, Alaska Council on Emergency Medical Services*

Compiled & Designed by Linda Van Houten, MPH

Edited by Zoann Murphy, MPH

February, 1996

*Community Health & Emergency Medical Services
Division of Public Health
Department of Health & Social Services
PO BOX 110616
Juneau, Alaska 99811-0616
(907) 465-3027*

Using this Planning Guide

Alaska EMS Goals creates an image of how the EMS system in Alaska should be now and in the near future. This image is developed in the guide's eight sections.

SECTION 100 – INTRODUCTION

- Scan **Section 110 – This Guide's Purpose** to find out why this guide was developed.
- Learn more about **Alaska's EMS Strategic Plan** in **Section 120**
- Explore **Section 130 – Description of Alaska** to discover some of the unique factors that make system planning challenging in Alaska.
- Examine **Section 140 – Alaska's EMS Regions & Sub-Areas** to see the areas this guide covers.
- Review **Section 150 – Acknowledgements** to find out who developed this guide.

SECTION 200 – ALASKA'S EMS NEEDS

- Review **Section 210 – Historical Overview** to see how the EMS system has evolved in the last two decades.
- Examine **Section 220 – The Challenges** to learn more about the current and future direction.
- Look at **Section 230 – Alaska's Data** to see what information is available to evaluate the EMS system's progress.

SECTION 300 – EMS ORGANIZATIONS

- Review **Section 310 – EMS Administration**, **Section 320 – EMS Services**, **Section 330 – EMS Facilities**, **Section 340 – EMS Training**, and **Section 350 – Support Services** to learn what the roles of the various agencies that compose Alaska's EMS system are.

SECTION 400 – PLANNING FRAMEWORK

- Read **Section 410 – Levels-of-Community Concept**, **Section 420 – Federal EMS Planning Model**, **Section 430 – Alaska EMS System**, and **Section 440 – Prehospital/Hospital/Post-Hospital Index** to learn about the two planning concepts used in this document to plan for Alaska's EMS system.

SECTION 500 – SPECIAL SYSTEM TOPICS

- Review **Section 510 – Air Medical Transportation**, **Section 520 – Communications**, **Section 530 – Hazardous Materials**, **Section 540 – Seasonal Impacts**, **Section 550 – Quality Assurance & Continuous Quality Improvement**, **Section 560 – Injury Prevention & Control**, **Section 570 – EMS for Children**, **Section 580 – Trauma Care System**, and **Section 590 – Trauma Registry** to learn more about these cutting-edge subjects.

SECTION 600 – COMMUNITY RECOMMENDATIONS

- Read this section to find recommendations for all community types. The recommendations are organized by the framework described in **Section 400**. The subsections are color-coded (see **Table of Contents**).

SECTION 700 – APPENDICES

- Look in **Section 710 – Glossary** to find definitions for EMS terms, including acronyms.
- Explore **Section 720 – Resources & References** to discover sources of national and state standards and regulations, as well as federal, state and regional EMS agencies and services.
- Read **Section 730 – Recommended EMS Equipment & Supplies** to find prioritized recommendations on what items other EMS workers find most useful.
- Review **Section 740 – Sample Record Forms** to find forms that can be used by local programs, or lists of information to include on developed forms.
- Examine **Section 750 – Past Priorities** to gain a historical perspective.

SECTION 800 – COMMUNITY INDEX

- Shows what level-of-care category a particular community fits in as well as community characteristics that influence EMS services.

TABLE OF CONTENTS

TABLE OF CONTENTS

SECTION 100 OVERVIEW	1
110 This Guide's Purpose	1
111 Mission	1
112 Goal.....	1
113 DHSS Vision.....	1
114 State, Regional & Local Planning	2
115 Community Involvement.....	2
120 Strategic Plan	2
130 Description of Alaska	2
131 Geographic Conditions	2
132 Population.....	2
133 Economy	3
140 EMS Regions & Sub-Areas.....	3
150 Acknowledgements	6
SECTION 200 EMS NEEDS IN ALASKA.....	7
210 Historical Recap.....	7
220 The Challenges	10
221 National Health Objectives	10
222 State Objectives.....	10
223 Priorities of the ACEMS.....	11
230 Alaska's Data	11
231 Vital Statistics.....	11
232 Ambulance Run Reports & Survey.....	12
233 Trauma Registry	12
234 Other Sources	13
SECTION 300 ALASKA'S EMS ORGANIZATIONS	14
310 EMS Administration.....	14
311 State EMS Section	14
312 Alaska Council on EMS.....	15
313 Regional & Sub-Area EMS Programs	16
314 Local EMS Councils	17
315 EMS Medical Directors	17
316 Federal Agencies	18
320 Prehospital EMS.....	22
321 First Responders	22
322 Ground Ambulance Services	22
323 Air Medical Services	22
330 EMS Facilities	23
331 Acute Care Hospitals	23
332 Emergency Care Clinics	23
340 EMS Training.....	23
342 State Certification	23
342 Levels of EMS Providers.....	24
343 Training Agencies	25
350 Support Services	25
351 Disaster Services	25
352 Fire Emergency Services	25
353 Hazardous Materials Services.....	25
354 Search & Rescue.....	26
355 Other Health Services.....	26
356 Injury Prevention.....	26
SECTION 400 EMS FRAMEWORK.....	28
410 Community Levels-of-Care	28

TABLE OF CONTENTS

411 Origin	28
412 Service Linkage.....	28
413 EMS characteristics	28
414 Community Classifications	29
415 Other Characteristics	29
420 Federal EMS Planning Model	32
430 Alaska EMS System.....	32
431 Fourteen Components	32
1 PERSONNEL.....	32
2 TRAINING.....	33
3 COMMUNICATIONS	33
4 PATIENT TRANSPORT/TRANSFER.....	33
5 FACILITIES, EQUIPMENT & SUPPLIES	34
6 PUBLIC SAFETY.....	34
7 ACCESSIBILITY TO CARE.....	34
8 COORDINATED RECORD KEEPING.....	34
9 PUBLIC INFORMATION & EDUCATION	34
10 EVALUATION.....	35
11 DISASTER RESPONSE.....	35
12 MUTUAL AID AGREEMENTS	35
13 MEDICAL DIRECTION.....	36
14 INJURY PREVENTION	36
440 Prehospital/Hospital/Post-Hospital Index.....	36
441 The Index.....	36
SECTION 500 SPECIAL SYSTEM TOPICS.....	39
510 Air Medical Transport	39
511 Certification Levels	39
512 Types of Transports	39
520 Communications.....	40
521 Communications System Components	40
530 Hazardous Materials	41
531 SARA Title III	41
532 Alaska SERC.....	41
533 OSHA 1910.120	44
534 NFPA 473.....	44
535 Alaska's Situation.....	44
536 EMS Involvement.....	45
540 Seasonal Impacts	46
541 Population-Related Impacts	46
542 Climate-Related Impacts	46
550 QA & CQI.....	47
551 Background.....	47
552 Quality Assurance	47
553 Continuous Quality Improvement.....	47
554 Applications.....	47
560 Injury Prevention & Control	49
561 Injuries in Alaska	49
562 Injury: A Public Health Problem.....	49
563 Injury Prevention & Control Program.....	49
564 Injury Prevention Resources	50
570 EMS for Children.....	50
571 Federal Initiative	50
572 Alaska Activities	50
580 Trauma Care System.....	52
581 Traumatic Injury & Public Health.....	52
582 Federal Planning Initiative.....	52

TABLE OF CONTENTS

583 An Inclusive Trauma Care System.....	52
584 Alaska Planning Initiative.....	53
590 Alaska Trauma Registry	53
591 Purpose	53
592 Inclusion Criteria	53
593 Data Confidentiality	53
594 Trauma Registry Reports.....	54
SECTION 600 COMMUNITY RECOMMENDATIONS	55
SECTION 610 LEVEL I ISOLATED VILLAGES	56
611 Community Listings.....	56
INTERIOR REGION	56
NORTH SLOPE REGION.....	57
NORTHWEST ARCTIC BOROUGH.....	57
NORTON SOUND REGION.....	57
SOUTHEAST REGION.....	57
SOUTHERN REGION	57
YUKON-KUSKOKWIM REGION	58
612 RECOMMENDATION.....	59
1 PERSONNEL.....	59
2 TRAINING.....	59
3 COMMUNICATIONS	60
4 PATIENT TRANSPORT/TRANSFER.....	60
5 FACILITIES, EQUIPMENT & SUPPLIES	61
6 PUBLIC SAFETY.....	61
7 ACCESSIBILITY TO CARE.....	61
8 COORDINATED RECORD KEEPING.....	62
9 PUBLIC INFORMATION & EDUCATION	62
10 EVALUATION	62
11 DISASTER RESPONSE.....	63
12 MUTUAL AID AGREEMENTS	63
13 MEDICAL DIRECTION.....	63
14 INJURY PREVENTION	64
SECTION 620 LEVEL I HIGHWAY VILLAGES	65
621 Community Listings	65
INTERIOR REGION	65
SOUTHEAST REGION.....	65
SOUTHERN REGION	65
622 Recommendations.....	66
1 PERSONNEL.....	66
2 TRAINING.....	66
3 COMMUNICATIONS	67
4 PATIENT TRANSPORT/TRANSFER.....	67
5 FACILITIES, EQUIPMENT & SUPPLIES	68
6 PUBLIC SAFETY.....	68
7 ACCESSIBILITY TO CARE.....	68
8 COORDINATED RECORD KEEPING.....	69
9 PUBLIC INFORMATION & EDUCATION	69
10 EVALUATION	69
11 DISASTER RESPONSE.....	70
12 MUTUAL AID AGREEMENTS	70
13 MEDICAL DIRECTION.....	70
14 INJURY PREVENTION	71
SECTION 630 LEVEL II ISOLATED TOWNS OR SUB-REGIONAL AREAS	72
631 Community Listings	72
INTERIOR REGION	72
NORTON SOUND REGION.....	72

TABLE OF CONTENTS

SOUTHEAST REGION.....	72
SOUTHERN REGION.....	72
YUKON-KUSKOKWIM REGION.....	73
632 Recommendations.....	73
1 PERSONNEL.....	73
2 TRAINING.....	74
3 COMMUNICATIONS.....	74
4 PATIENT TRANSPORT/TRANSFER.....	75
5 FACILITIES, EQUIPMENT & SUPPLIES.....	76
6 PUBLIC SAFETY.....	76
7 ACCESSIBILITY TO CARE.....	76
8 COORDINATED RECORD KEEPING.....	77
9 PUBLIC INFORMATION & EDUCATION.....	77
10 EVALUATION.....	78
11 DISASTER RESPONSE.....	78
12 MUTUAL AID AGREEMENTS.....	79
13 MEDICAL DIRECTION.....	79
14 INJURY PREVENTION.....	79
SECTION 640 LEVEL II HIGHWAY TOWNS OR SUB-REGIONAL CENTERS.....	80
641 Community Listings.....	80
INTERIOR REGION.....	80
SOUTHERN REGION.....	80
642 Recommendations.....	81
1 PERSONNEL.....	81
2 TRAINING.....	81
3 COMMUNICATIONS.....	82
4 PATIENT TRANSPORT/TRANSFER.....	82
5 FACILITIES, EQUIPMENT & SUPPLIES.....	83
6 PUBLIC SAFETY.....	83
7 ACCESSIBILITY TO CARE.....	84
8 COORDINATED RECORD KEEPING.....	84
9 PUBLIC INFORMATION & EDUCATION.....	84
10 EVALUATION.....	85
11 DISASTER RESPONSE.....	85
12 MUTUAL AID AGREEMENTS.....	86
13 MEDICAL DIRECTION.....	86
14 INJURY PREVENTION.....	86
SECTION 650 LEVEL III LARGE TOWNS OR REGIONAL CENTERS.....	88
651 Community Listings.....	88
INTERIOR REGION.....	88
NORTH SLOPE BOROUGH REGION.....	88
NORTHWEST ARCTIC BOROUGH REGION.....	88
NORTON SOUND REGION.....	88
SOUTHEAST REGION.....	88
SOUTHERN REGION.....	88
YUKON/KUSKOKWIM REGION.....	88
652 Recommendations.....	89
1 PERSONNEL.....	89
2 TRAINING.....	90
3 COMMUNICATIONS.....	90
4 PATIENT TRANSPORT/TRANSFER.....	91
5 FACILITIES, EQUIPMENT & SUPPLIES.....	92
6 PUBLIC SAFETY.....	93
7 ACCESSIBILITY TO CARE.....	94
8 COORDINATED RECORD KEEPING.....	94
9 PUBLIC INFORMATION & EDUCATION.....	95

TABLE OF CONTENTS

10 EVALUATION	95
11 DISASTER RESPONSE.....	95
12 MUTUAL AID AGREEMENTS	96
13 MEDICAL DIRECTION.....	97
14 INJURY PREVENTION	97
SECTION 660 LEVEL IV SMALL CITIES	99
661 Community Listings	99
INTERIOR REGION.....	99
SOUTHEAST REGION.....	99
SOUTHERN REGION	99
662 Recommendations.....	100
1 PERSONNEL.....	100
2 TRAINING.....	101
3 COMMUNICATIONS	101
4 PATIENT TRANSPORT/TRANSFER.....	102
5 FACILITIES, EQUIPMENT & SUPPLIES	104
6 PUBLIC SAFETY.....	106
7 ACCESSIBILITY TO CARE.....	106
8 COORDINATED RECORD KEEPING.....	107
9 PUBLIC INFORMATION & EDUCATION	107
10 EVALUATION	108
11 DISASTER RESPONSE.....	108
12 MUTUAL AID AGREEMENTS	109
13 MEDICAL DIRECTION.....	110
14 INJURY PREVENTION	110
SECTION 670 LEVEL V URBAN CENTERS	111
671 Community Listings	111
SOUTHERN REGION	111
672 Recommendations.....	112
1 PERSONNEL.....	112
2 TRAINING.....	113
3 COMMUNICATIONS	114
4 PATIENT TRANSPORT/TRANSFER.....	114
A STANDARDS.....	114
5 FACILITIES, EQUIPMENT & SUPPLIES	116
6 PUBLIC SAFETY.....	119
7 ACCESSIBILITY TO CARE.....	120
8 COORDINATED RECORD KEEPING.....	120
9 PUBLIC INFORMATION & EDUCATION	120
10 EVALUATION	121
11 DISASTER RESPONSE.....	121
12 MUTUAL AID AGREEMENTS	122
13 MEDICAL DIRECTION.....	123
14 INJURY PREVENTION	123
SECTION 680 OTHER AREAS.....	125
681 Very Small Communities	125
681.1 Recommendations.....	125
1 PERSONNEL.....	125
3 COMMUNICATIONS	125
4 PATIENT TRANSPORT/TRANSFER.....	125
5 FACILITIES, EQUIPMENT & SUPPLIES	126
6 PUBLIC SAFETY.....	126
7 ACCESSIBILITY TO CARE.....	126
8 COORDINATED RECORD KEEPING.....	126
13 MEDICAL DIRECTION.....	126
14 INJURY PREVENTION	127

TABLE OF CONTENTS

682 HIGHWAYS	127
682.1 Recommendations	127
1 PERSONNEL	127
3 COMMUNICATIONS	127
4 PATIENT TRANSPORT/TRANSFER	128
9 PUBLIC INFORMATION & EDUCATION	128
12 MUTUAL AID AGREEMENTS	128
14 INJURY PREVENTION	128
683 MARINE HIGHWAY	129
683.1 Recommendations	129
1 PERSONNEL	129
2 TRAINING	129
3 COMMUNICATIONS	129
4 PATIENT TRANSPORT/TRANSFER	129
5 FACILITIES, EQUIPMENT & SUPPLIES	130
PUBLIC SAFETY	130
7 ACCESSIBILITY TO CARE	130
8 COORDINATED RECORD KEEPING	130
9 PUBLIC INFORMATION & EDUCATION	130
10 EVALUATION	131
11 DISASTER RESPONSE	131
13 MEDICAL DIRECTION	131
14 INJURY PREVENTION	131
684 AT-RISK SITES	132
684.1 SCHOOLS	132
1 PERSONNEL	132
2 TRAINING	132
4 PATIENT TRANSPORT/TRANSFER	132
9 PUBLIC EDUCATION & INFORMATION	132
14 INJURY PREVENTION	132
684.2 HIGH-RISK WORK SITES	133
1 PERSONNEL	133
2 TRAINING	133
3 COMMUNICATIONS	133
4 PATIENT TRANSFER/TRANSPORT	134
5 FACILITIES, EQUIPMENT & SUPPLIES	134
8 COORDINATED RECORD KEEPING	134
13 MEDICAL DIRECTION	134
14 INJURY PREVENTION	134
1 PERSONNEL	135
2 TRAINING	135
3 COMMUNICATIONS	135
4 PATIENT TRANSFER/TRANSPORT	135
11 DISASTER RESPONSE	135
14 INJURY PREVENTION	135
SECTION 700 APPENDICES	137
710 Glossary	137
711 Acronyms	137
712 Definitions	139
720 Resources & References	145
721 General	145
722 Alaska EMS Legislation & Regulations	145
723 State Guidelines	146
724 National Guidelines	146
725 State Materials Distributed by Regional EMS Offices	147
730 Recommended EMS Equipment & Supplies	147

TABLE OF CONTENTS

731 First Responders	148
732 Ambulance Services	148
733 Air Transport Services	152
710 Prehospital Care Record Forms	162
750 Past Priorities	170
SECTION 800 COMMUNITY INDEX	171
810 Organization	171
820 Key	171
Section 830 Community Listings	174

SECTION 100 INTRODUCTION

OVERVIEW

This section provides general information about Alaska and the scope, organization, and development of this planning guide. This section is organized in four sub-sections.

- ◆ **Section 110** explains **This Guide's Purpose**.
- ◆ **Section 120** describes the status of the current **Strategic Plan**.
- ◆ **Section 130** provides a brief **Description of Alaska**.
- ◆ **Section 140** shows **Alaska's EMS Regions & Sub-Areas**.
- ◆ **Section 150** acknowledges those involved in the development of this guide.

110 This Guide's Purpose

This guide is designed to help implement the mission and overall goal of the Alaska EMS program with topic-specific goals based on the national EMS planning components. The Alaska Council on Emergency Medical Services, or ACEMS, adopted the following mission and goal statement on May 12, 1990.

111 Mission

The mission of the Emergency Medical Services (EMS) program in Alaska is to reduce both the human suffering and economic loss to society resulting from premature death and disability due to injuries and sudden illnesses.

112 Goal

The overall goal of the Emergency Medical Services program is to prevent life-threatening and disabling injuries whenever possible, and to establish a comprehensive, coordinated system of emergency medical services that:

- ◆ Assures citizens and visitors easy access to services;
- ◆ Provides an injury prevention component;

- ◆ Expedites initial response;
- ◆ Ensures appropriate lifesaving and stabilization measures rendered at the scene; and
- ◆ Ensures transport or transfer of patients in a timely and efficient manner to facilities capable of effecting maximum recovery and rehabilitation.

113 DHSS Vision

Commissioner Karen Perdue, working with Deputy Commissioners and Division Directors, created a vision of how the Department should be operated given the changes to the social service system precipitated by 1995 US Congressional action. The elements of this vision include:

1. **Customer Driven:** Customers are usually the experts regarding their health. If the responsibility for health is shared with them, we will respond to their ideas regarding their needs.
2. **Collaborative System:** If local governments, consumers, advocates, service providers, business, and departments work together, we can create ownership and trust.
3. **Programs Focused on Self-Sufficiency:** Programs that help people help themselves promote self-sufficiency, are more respectful of individuals and families, and invest in long-term, sustainable health and well-being of Alaskans.
4. **Local Ownership:** Local communities know their needs best, especially in Alaska where communities offer a diverse array of cultures, climates, and lifestyles. Communities and families offer strength and resources towards meeting the challenges they face.
5. **Effective, Efficient Management System:** Staff at all levels needs the tools and authority to be creative and responsive in serving Alaskans. Effective management produces productive employees who have a stake in the success of the organization.
6. **Quality Work Force:** A skilled and committed work force is essential to do our job.
7. **Outcome-Based Effective Services:** Designing programs to assess whether services are addressing real needs is essential to maintaining morale and to know

that a difference is being made in people's lives.

These seven characteristics are an intrinsic part of Alaska's Emergency Medical Services system.

114 State, Regional & Local Planning

By implementing these mission and goal statements, *Alaska EMS Goals* directs the State EMS Office in administering state laws and the statewide EMS system. In addition, the guide leads regional and local policymakers in developing and expanding regional and local programs. It is used in the annual review of proposals for awarding state grants. ACEMS sets annual priorities (see **Section 223**), and requests to fund projects within these prioritized areas will receive higher scores than those addressing lower priorities. Since state, regional, and local EMS programs have finite financial resources to deal with today's challenging issues, *Alaska EMS Goals* provides policymakers with a basis for deciding how to allocate scarce resources in developing Alaska's emerging EMS system.

115 Community Involvement

Alaska EMS Goals is meant to be more than a road map of how we get from here to there. Although this guide provides a set of goals to assist local and regional emergency medical service providers and policy makers in their planning, its intention is to precipitate a process by which interested people, from program administrator to medical director to trainer to volunteer EMT to private citizen, constructively share their ideas, knowledge, and information to create a whole that achieves more than the sum of the parts. This process involves effective communication, negotiation, and cooperation. *Alaska EMS Goals* is a catalyst for the process of improving Alaska's EMS system. To be involved, call the State EMS Office at 907/465-3027.

120 Strategic Plan

In 1988 the Planning and Evaluation Task Force of the Advisory Council on Emergency Medical Services (which is now the Alaska Council on EMS) developed a strategic plan. This three-year plan provided a broad strategy for a

direction in which planners wanted to see the EMS program move. Many of the goals of this plan were achieved. Updating the EMS system strategic plan has been identified as a priority by the Alaska Council on EMS. Effort is currently underway to develop another strategic plan with specific long-range goals. For instance, many components of the action plan of the *Alaska Trauma Care System Plan* need to be implemented.

130 Description of Alaska

The following review highlights Alaska's unique geographic, demographic, and economic conditions that influence the planning, development, and implementation of a statewide program.

131 Geographic Conditions

Alaska occupies the Northwestern-most corner of the North American Continent, bounded by the Arctic Ocean on the North, the Bering Sea on the West, the Gulf of Alaska and the North Pacific Ocean on the South, and Canada on the East. Alaska is huge by any standard, 591,000 square miles, or more than twice the size of Texas. Its six major mountain ranges include North America's highest peak, half the world's glaciers, and more active volcanoes than any other country. Alaska's 6,640 miles of coastline is larger than the other 49 states combined. Alaska stretches between latitudes of 51 degrees and 72 degrees N and 130 degrees W and 173 degrees E longitudes. Superimposed on a map of the lower 48 states, Alaska sprawls from Florida to California to Canada.

132 Population

Although the largest state in area, Alaska is the second smallest in population with 615,900 in 1995. Its population density is the lowest: 1.05 persons per square miles. Even this figure misleads because about half of the people live in Anchorage. The balance is spread across the state in 20 regional centers and numerous villages and towns, three quarters of which have no road access to a community with a hospital. Despite limited road access, there are over 12,000 miles of public road throughout the state of which about half is paved.

The population has several unique characteristics. Alaskans are young. In 1990 the median age was 28.5 years compared to 32.9 years for the United States. Men slightly outnumber women with a ratio of 1.1 to 1. The population consists of several ethnic groups. Caucasians make up more than three-quarters; Alaska Natives (Yu'pik and Inupiat Eskimos, Aleuts, and Athabaskan, Haida, Tlingit, and Tsimshian Indians) account for 16 percent; and the other ten percent consists of Asians and Pacific Islanders, African Americans and others.

Although Alaska's population nearly doubled within the past two decades, this trend reversed in the mid-1980s and did not stabilize until the 1990s. In 1984 there was a natural population increase (births minus deaths) of 10,653. Population counts show that, even though the natural increase remained fairly constant, out-migration exceeded the natural increase until 1989. But the state population has continued to grow in the 1990s: 569,383 in 1991; 586,328 in 1992; 597,868 in 1993; and 606,278 in 1994. These trends reflect the state's economic pattern.

133 Economy

Alaska's economy, prone to boom-bust cycles over the past century, was nearly devastated by the 1986 oil-recession. More than 80 percent of the State of Alaska's revenue is tied to the oil industry. Mining, timber, fishing, tourism, and the federal government account for the other 20 percent. As a result of the wellhead price of oil plummeting from \$30 per barrel to \$9, the state faced a fiscal crisis in FY 1987. A one-dollar change in the price of a barrel of Alaskan crude results in a \$150 million fluctuation in the state's revenue. For instance, the FY 87 operating budget decreased 15 percent from FY 86, and the capital budget was cut 50 percent. These reductions hit every community through service cuts/eliminations, or job losses.

With the slow oil-price rebound during the late 1980s, services and employment were restored, gradually in most cases. Nonetheless, the wavering political conditions in the Middle East, declining North Slope oil production, and the debate over whether or not oil development should occur in the Arctic National wildlife Refuge or else where in Alaska indicate uncertainty for the state's economic future.

140 EMS Regions & Sub-Areas

From an EMS perspective, Alaska consists of seven state-funded regions. Three of these regions are further divided into sub-areas. **Map 140-1** shows the regions. **Map 140-2** shows the sub-areas. Organized boroughs and Native health service areas may be sub-areas.

Although a popular adage says that one picture is worth a thousand words, there are several elements that a map of Alaska does not communicate. Alaska's unusual geographic, demographic, and economic characteristics dramatically impact EMS delivery and the development of a systems approach. National standards for response times, vehicle placement, and staffing patterns of emergency facilities cannot feasibly be met in most rural areas of the state.

(Inserts: Map 140-1)

- 1 Interior Region**
- 2 Northwest Arctic Borough Region**
- 3 North Slope Borough Region**
- 4 Norton Sound Region**
- 5 Southeast Region**
- 6 Southern Region**
- 7 Yukon-Kuskokwim Region**

EMS REGIONAL AND AREA ADDRESS LIST

Interior Region

Interior Region EMS Council,
Inc.
3522 Industrial Ave.
Fairbanks, AK 99701
907-456-3978

North Slope Borough Region

EMS Coordinator
North Slope Borough
PO BOX 69
Barrow, AK 99723
907-852-0234

Northwest Arctic Borough Region

EMS Director
Maniilaq Association
PO BOX 256
Kotzebue, AK 99752
907-442-7126

Norton Sound Region

EMS Director
Norton Sound Health
Corporation
PO BOX 966
Nome, AK 99762
907-443-3311

Southeast Region

Southeast Region EMS Council,
Inc.
PO BOX 259
Sitka, AK 99835
907-747-8005

Southern Region

Southern Region EMS Council,
Inc.
6130 Tuttle Place
Anchorage, AK 99507
907-562-6449

Yukon-Kuskokwim Region

EMS Director
Yukon-Kuskokwim Health
Corporation
PO BOX 528
Bethel, AK 99559
907-543-6083

Aleutian/Pribilof Island Sub-Area – East

EMS Coordinator
East Aleutians Tribes, Inc.
721 Sesame Street
Anchorage, AK 99503
907-563-1414

Aleutian/Pribilof Island Sub-Area – West

EMS Coordinator
Aleutian/Pribilof Islands Association
401 East Fireweed Lane, Suite 201
Anchorage, AK 99503
907-276-2700

Anchorage & Cook Inlet Sub-Area

Municipality of Anchorage
EMS Chief
Anchorage Fire Department
1301 East 80th Avenue
Anchorage, AK 99518
907-267-4900

Annette Island Sub-Area

EMS Coordinator
Metlakatla Indian Community
PO BOX 8
Metlakatla, AK 99926
907-886-4741

Bristol Bay Sub-Area

EMS Coordinator
Bristol Bay Area Health Corporation
PO BOX 130
Dillingham, AK 99576
907-842-5201

Copper River Sub-Area

Copper River EMS Council
PO BOX 529
Glennallen, AK 99588
907-882-3671

Fairbanks North Star Borough Sub-Area

Emergency Manager
Fairbanks North Star Borough
PO BOX 71267
Fairbanks, AK 99707
907-459-1219

Kenai Peninsula Borough Sub-Area

Kenai Peninsula EMS Council
Homer Volunteer Fire Department
PO BOX 215
Seldovia, AK 99663
907-235-3155

Kodiak Island Borough Sub-Area

EMS Coordinator
Kodiak Area Native Association
402 Center Street
Kodiak, AK 99615
907-486-5726

Matanuska-Susitna Borough

EMS Coordinator
680 N. Seward Meridian Parkway
Wasilla, AK 99654
907-373-8800

Prince William Sound Sub-Area

EMS Coordinator
Chugachmuit – Homer Field Area
4252 Hohe Street, Suite B
Homer, AK 99603
907-235-0577

Map 140-2)**150 Acknowledgements**

This guide is a synthesis of ideas and approaches based on experiences in local, regional, and statewide EMS systems. The original 1981 version of the guide was developed with the help of many Alaskans. The first revision (1984), the second revision (1993), and the third revision (1996) reflect the experiences of the many who have used the guide in the decade and a half since its inception.

In addition to the advisory groups and individuals who contributed ideas and reviewed drafts of the first document, the following people should receive recognition for providing the main content for the original *Alaska EMS Goals* published in 1981: **Laurel Anderson, Jan Dixon Jennifer Gleason, Lynne Johnson-Joseph, Fran McAfee, and Dr. Tim Samuelson.** The Southern Region EMS Council Board of Directors provided the starting point for initial revisions to the recommendations for Level I and Level II communities in the 1984 revision. Those extensively involved with revisions to the **second edition** included: **Laurel Anderson, Matt Anderson, Martha Branscom, Deborah Frank, Dr. John Hall, Cindy Jimmerson, Kevin Ray, Tom Scott, Kathy Sloan, Casie Williams, and Cindy Young.** Gloria Houston Way compiled the first two versions.

Key participants in the **third edition** included: **Matt Anderson, Anne Haydon, Dave Pierce, Larry Bussone, Martha Moore, Cheryl Conkle, Craig Lewis, Casie Williams, Mary Ellen McMillin, Alex Felker, Richard Kennedy, Shawn Newell, Ronni Sullivan, Harry Baldwin, Thomas Wells, Dr. J. Todd Huttenlocher, and Steve O'Connor.**

The **fourth edition** of *Alaska EMS Goals* includes the *Alaska EMS Trauma Care System Plan*, which was developed under the guidance of the Alaska Trauma Care System Task Force in 1994.

Special thanks go to the members of the **Prehospital Trauma Committee** of the Alaska Trauma Care system Task Force who displayed dedicated perseverance through the numerous work sessions for the development of the *Alaska*

Trauma Care System Plan, and the combining of this plan with *Alaska EMS Goals*. Members of the Prehospital Trauma Committee included:

Steve O'Connor, Gary Bledsoe, Dr. Gil Dickie, Tim Everson, Dr. J. Todd Huttenlocher, Dr. David Ingraham, Craig Lewis, Aggie Lie, Barbara Simonsen, and Ronni Sullivan. Other key participants in the fourth edition included: **Matt Anderson, Larry Bussone, Anne Haydon, Sharron Lobaugh, Martha Moore, Bill Kriegsman, and Thomas Wells.** Steve O'Connor, Chairman of the Prehospital Trauma Committee, and Dr. Dave Ingraham, the State EMS Medical Director, deserve special recognition for dedicating themselves to several two-day work sessions to hone the community recommendations into concise statements with continuity between the levels. Steve O'Connor also provided extensive comments on each draft.

Support for developing and printing the fourth edition was provided by a State Trauma Systems grant from the US Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Resources Development.

Members of the **Alaska Council on Emergency Medical Services** provided conceptual direction, review, comment, and final approval of all four documents. **Regional EMS Directors and Sub-Area EMS Coordinators** suggested substantive changes in content, community categories, and wording to provide more realistic and useful 1984 and 1993 revisions.

To all who have played a part in the evolution of this planning guide, thanks for sharing your knowledge and for contributing to the people of our state.

[Linda Van Houten, MPH
Health Program Manager]

Mark S. Johnson, MPA
EMS Section Chief

SECTION 200

EMS NEEDS IN ALASKA

OVERVIEW

This section defines Alaska's more prominent EMS needs and priorities. The section contains three sub-sections.

- **Section 210** recaps the **development** of the **Alaska EMS system**.
- **Section 220** discusses the **national** and **state priorities** related to EMS.
- **Section 230** reviews the available **state data**, showing the **EMS program's effectiveness**.

The current *Emergency Medical Services Report to the Legislature*, which is available from the State EMS Office at the beginning of each year, details the activities and accomplishments of the statewide Emergency Medical Services program during the past year.

210 Historical Recap

During the past 20 years, Alaskans have witnessed phenomenal progress in the development of an emergency medical services system. What we take for granted today did not even exist a generation ago. This progress has come about with the help of countless volunteer and paid EMS responders, as well as EMS instructors and administrators, nurses, physicians, elected officials, and others throughout the state.

Back in the 1960s, most towns in Alaska had no organized ambulance service, and those that did were lucky to have squads with Advanced First Aid training. There were no air ambulance services. Emergency medical services communications were virtually non-existent, and citizens had to call different numbers for police, fire, or ambulance dispatch. Hospital emergency departments, even in the larger cities and towns, were covered by rotating, on-call staff physicians, and neither physicians nor nurses and much

specialized emergency medical training. Only hospitals in Anchorage had 24-hour emergency medicine coverage, and this was usually provided by moonlighting military physicians. Essentially, there was no emergency medical services system as we know it today.

This situation began to change when EMT training at the Public Safety Academy began in Sitka in 1969. This training was originally provided only to State Troopers, but was soon offered to ambulance squad members who could travel to Sitka for classes. Planning for improved services began in 1971 and, by 1973, more than 450 people had taken the EMT classes in Sitka. According to a survey conducted by the Department of Health and Social Services that year, 156 out of a total of 335 civilian ambulance crew members were trained EMS, most of whom were volunteers. Further progress occurred with the 1974 amendment to the State Medical practice Act, allowing the licensing of Mobile Intensive Care Paramedics.

The Emergency Medical Services systems Act (EMSS) was passed by Congress and signed by President Nixon in 1973. Its purpose was to provide federal financial support, technical assistance, and encouragement for the development of improved emergency medical services systems in communities, regions, and states throughout the nation. Under this Act, states and public or non-profit private regional entities were eligible for three types of grants to establish or improve their emergency medical services system, including feasibility studies and planning grants, establishment and initial operations grants, and expansion and improvement grants. Under these grants, the federal program sought, in each region, a comprehensive plan for an EMS system, addressing fifteen major system components (**listed in Section 420**), both at the prehospital and hospital levels of emergency care.

Although the national law was passed in 1973, the State of Alaska had recognized the need for addressing emergency medical services planning as early as 1971 when an EMS planner position was established in the Office of Comprehensive Health Planning in the Department of Health and Social Services.

In 1974, three organizations including: the Department of health and Social Services (DHSS); the Alaska Federation of Natives; and

Maniilaq Association in Kotzebue, applied for federal EMS grants, but all three applications were rejected due to their lack of comprehensiveness. In 1975, the DHSS and the Tanana Chiefs Conference in Fairbanks applied for an “Establishment and Initial Operations” grant. The two applications were approved on the condition that they be combined with DHSS acting as the lead agency. Funds for a state EMS lead agency, EMT training, and support for EMS coordinators in seven EMS regions statewide were made available. In 1976, the state received a second-year federal grant that provided funds for establishing a separate state EMS office, EMT training, the Tanana chiefs conference program, as well as regional coordinators in seven regions. During the same year, Congress passed a \$1.35 million appropriation for EMS activities through the Alaska Area Native Health Service to the twelve Regional Native Health Corporations. The Tanana Chiefs conference returned coordination of the Interior Region’s EMS program to the state. The Division of Public Health, Northern Regional Office, began to administer the Interior’s EMS Program for an interim period.

In 1977, the state submitted an application for Establishment and Initial Operations grants for seven regions and an Expansion and Improvement grant for the Interior Region. Later, it was administered by an organization titled Physicians Services of Fairbanks, Inc., and by 1979, the non-profit Interior Region EMS Council, Inc., was established.

In May 1977, the Legislature passed *HB 407* which established the Department of Health and Social Services as the state lead agency responsible for developing an emergency medical services system in Alaska, and established an 11 member State Advisory Council on EMS. In July of 1977, the state received another federal grant providing funds for the State EMS Office, EMT training, extension of Interior Region’s EMS program, and two Establishment and Initial Operations grants to Maniilaq Association and to the newly formed Southeast Region EMS Council, Inc. In 1978, the EMS program was transferred, from a separate office in the Department of Health and Social Services, to the Division of Public Health.

In March 1978, the state submitted an application for the completion of Establishment and Initial Operations of EMS for the Southeast

and Northwest Arctic Borough Regions and for Planning and Feasibility grants for the combined regions of Southern, Bristol Bay, Yukon-Kuskokwim, and Norton Sound. In May 1978, the legislature passed *CSHB 896* and *CSHB 897* which appropriated state general funds for EMT training and EMS activities statewide, and gave DHSS the authority to certify EMTs and other prehospital EMS providers, as well as EMT instructors, and ground and air ambulance services.

In 1978, the state received another federal grant and a state appropriation to provide funds for the State Office, EMT training, regional support staff for Interior Region, two second-year Establishment and Initial Operations grants (Maniilaq and Southeast EMS Region Council, Inc.), and a Planning and Feasibility Study grant to Southern Region EMS Council, Inc. for the Southern, Bristol Bay, Yukon-Kuskokwim, and Norton Sound Regions.

In 1979, southern, Bristol Bay, Norton Sound, and Yukon-Kuskokwim Regions formed one region called Southern Region EMS council, Inc. (Norton Sound became a separate region in FY 84, and the Yukon-Kuskokwim Region was formed in FY 89.) The Northwest Arctic and North Slope Borough Regions, and Interior Region became the Northern Region EMS Council, Inc., but this region only lasted for two years and, in 1981, dissolved back into three regions.

By 1980, state general fund appropriations for the statewide EMS program were increased to offset expiring federal grants for the Northern and Southeast Regions, and a year later, general fund appropriations increased again to cover costs of EMS grants in all regions. Since then, the statewide EMS program has been funded primarily by state general funds, as well as local funds and fees for service, but a few federal grants have been received for special projects.

The EMS system has come a long way over the last two decades. In 1973, before the Alaska EMS system was put into state law, there were only 35 organized ambulance services in the state. By mid 1995, there were 99 organized ground ambulance services, of which 38 were certified at the advanced life support (ALS) level and another 39 had some ALS services available at least some of the time. By 1996, there also were 72 organized first responder services, and

there were trained and equipped first responders or EMTs in virtually every village in Alaska.

In 1980, there was no such thing as a certified EMT-II or EMT-III, but by early 1996, there were 470 EMT-Is and 487 EMT-IIIs certified statewide, and over 150 paramedics (about double the number in 1980). In 1980, there was one air ambulance service statewide, but by 1996, there were 16 state-certified air ambulance or medevac services. In 1980, major portions of rural highways had no EMS radio communications coverage, but by 1991 most major highways had adequate EMS communications, and emergency call boxes were in place along the Seward Highway and in the Matanuska-Susitna Borough. However, EMS communications system problems, and lack coverage, continue to exist along many rural highways, especially in Interior and Northern Alaska.

During these years, countless thousands of citizens were trained as Emergency Trauma Technicians (ETTs) or as first aiders. The EMS program also made significant efforts to develop and promote injury prevention programs, and to develop a more comprehensive trauma care system. (See **Section 560: Injury Prevention & Control** and **Section 580: Trauma Care System** for additional information.)

A 1980 study, *Drowning Deaths in Alaska, 1975-1979*, began an increased focus on injury prevention that has continued through grant funds. The State EMS Office provided grants to the three Health Systems Agencies for injury prevention in 1981. These funds were used to develop a boating safety media campaign and curriculum in Southeast, a safety week in Southcentral, and a resource directory and injury prevention plan for Interior Alaska. In 1983, the State EMS Office developed a boating safety and drowning prevention curriculum for Alaska, *Cold Water Winners*, designed for children in grades K-12.

In 1985, the State EMS Office provided technical assistance to help start the Alaska Marine Safety Education Association, or AMSEA. AMSEA provides marine safety training and support to a cadre of volunteer instructors who in turn provide training throughout the state. The State EMS Office continues to help AMSEA by assisting with grant procurement.

The State EMS Office provided two injury prevention grants in 1986. Support was given to the Yukon-Kuskokwim Health Corporation to assist in the promotion of ATV safety, targeting at-risk youth ages 12 to 19. Another went to Providence Hospital in Anchorage to enhance the Safety Seal Injury Prevention Program through the development of materials and a comprehensive educational component.

A Special Project of Regional and National Significance (SPRANS) grant from the federal Maternal and Child Health Bureau, Health Resources and Services Administration (HRSA), of the US Department of Health and Human Services was received by the State EMS Office in 1987. A child injury prevention program was developed jointly with the State Maternal, Child and Family Health Section, the State Public Health Nursing Section, and the Municipality of Anchorage. Several projects were completed, including the development of materials and establishment of child injury prevention education as a part of public health nurses' routine counseling in well-child clinics at public health centers.

In cooperation with the Section of Epidemiology, the State EMS Office received a four-year federal grant from the Centers for Disease Control in 1989. This injury prevention and control capacity building grant was to establish a statewide injury prevention and control program in Alaska. The program has generated initiatives to prevent morbidity, mortality, and disability caused by injuries. Major components of the project were:

1. Research to acquire detailed information about specific causes of injuries in Alaska,
2. Implementation of injury prevention and control activities,
3. Production of a statewide injury prevention plan,
4. Development of an Injury Prevention Coalition,
5. Establishment of an injury prevention resource center, and
6. Provision of technical assistance and support for other injury prevention and control projects around the state.

Injury-oriented research and data collecting are done with the Alaska Trauma Registry. The Alaska Trauma Registry is a data collection

system of the most seriously injured patients and the treatment that they have received. This information is used by hospital and prehospital providers to review their performance and identify needs in training, personnel, and equipment. State and regional agencies use this information to evaluate the EMS system, for program development, and for baseline data to promote injury prevention (see **Section 233** for more detail about this important database). Major injury prevention projects include support for AMSEA; expansion of the child injury prevention program, Safe Kids; and continued support for Public Health Nurses.

In 1989, EMS supported Providence Hospital's efforts to start an Alaska Chapter of the Safe Kids Campaign. The Injury Prevention Program has been instrumental in helping to establish Safe Kids Coalitions in Juneau, Fairbanks, Homer, and Soldotna.

Injury prevention education for health professionals became a regular part of the program at the EMS statewide annual pre-symposium workshop in 1989.

The Challenges

This area is divided into three parts:

- ◆ **221 National Health Objectives**
- ◆ **222 State Objectives**
- ◆ **223 Priorities of the Alaska Council on EMS**

221 National Health Objectives

Healthy People 2000: National Health Promotion and Disease Prevention Objectives contains the elements of a national health perspective. The focus of this outlook is prevention of unnecessary disease, injury, and disability to achieve a better quality of life for all Americans. It grew out of a health strategy initiated in 1979 with the publication of *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* and expanded with the 1980 publication of *Promoting Health/Prevention of Disease: Objectives for the Nation*, which set out an agenda for the ten years leading up to 1990.

The purpose of *Healthy People 2000* is to offer a vision for the new century, characterized by significant reductions in preventable death and disability, enhanced quality of life, and reduced disparities in the health status of populations within our society. It is the product of a national effort, involving professionals and citizens, private organizations and public agencies from every part of the country.

Many objectives in *Healthy People 2000* relate to emergency medical services and injury prevention. The *Alaska Injury Prevention Plan* discusses some of the objectives as well.

222 State Objectives

222.1 Emergency Medical Services Priorities

Despite the accomplishments made in the last two decades, Alaska still has several goals to meet. By the end of the decade, we hope to be able to say, as described in the overall goal of the EMS program, that Alaska has a comprehensive, coordinated system of emergency medical services that:

- Assures citizens and visitors easy access to services;
- Provides an injury prevention component;
- Expedites initial response;
- Ensures appropriate lifesaving and stabilization measures rendered at the scene; and
- Ensures transport or transfer of patients in a timely and efficient manner to facilities capable of effecting maximum recovery and rehabilitation.

Also, a greater emphasis on injury prevention and appropriate evaluation mechanisms should be in place to help determine which prevention strategies are effective.

To accomplish this, eight objectives are now at the forefront:

1. Continued extension of emergency radio communication systems and emergency call boxes to all rural highways;
2. More organized medevac services in all regions and sub-areas, including the Northwest Arctic Borough Region, the Bristol Bay Sub-Area, the Aleutian-Pribilof Sub-Area, possibly the Kodiak Sub-Area, and the Sitka area;

3. At least one statewide Trauma Center in Anchorage meeting American College of Surgeons Level II status;
4. A well-organized, statewide, multiple casualty disaster response system;
5. Well-equipped, certified EMTs in all villages;
6. All EMS dispatchers trained as Emergency Medical Dispatchers;
7. Rapid defibrillation programs in all communities that meet the American Heart Association's *Chain of Survival* criteria; and
8. A permanent injury prevention and control program in the Division of Public Health.

222.2 Alaska Objectives for the Year 2000

The *Alaska Injury Prevention Plan* and the *Healthy Alaskans 2000* list indicators for the state related to emergency medical services. (Contact the Emergency Medical Services Section, Division of Public Health and the Planning Section, Division of Administrative Services, Department of Health and Social Services for copies of these respective documents.) **Section 230** shows several Alaska objectives for the Year 2000 as well as baseline and present rates.

223 Priorities of the ACEMS

Each year the Alaska Council on Emergency Medical Services, or ACEMS, sets priority areas for EMS grant applicants. The applicants emphasize these areas in their program planning. Current priorities are listed here.

At the September 1995 ACEMS meeting, there was consensus on four ACEMS priorities for the Fiscal Year 97 EMS Grant Application Requests for Proposals. The priority areas include:

1. Maintenance of current programs;
2. Training EMTs and instructors
3. Training for trauma and injury prevention; and
4. Mass casualty and disaster response training.

230 Alaska's Data

Data assists program evaluation. State vital statistics cause of death data helps show how well we did in achieving the previous objectives.

State ambulance run reports and the Alaska trauma registry are data sources providing relevant information about serious injuries.

This area is divided into four parts, specifically:

- ♦ **231 Vital Statistics**
- ♦ **232 Ambulance Run Reports & Survey**
- ♦ **233 Trauma Registry**
- ♦ **234 Other Sources**

231 Vital Statistics

231.1 Progress Towards the Year 2000 Health Objectives

This section shows the progress for some of the national *Healthy People 2000* objectives listed in **Section 221**. All rates are age-adjusted unless specified. Alaska objectives for the Year 2000 and the baseline Alaska rates are from *Healthy Alaskans 2000* (available from the State EMS Office) also contains additional information for some of the following indicators.

1.1 Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

US Baseline: 135 per 100,000 in 1987

AK Objective : 116.2 per 100,000 in 2000

AK Baseline: 129.1 per 100,000 in 1989

AK Status: 115.8 per 100,000 in 1993

7.2 Reduce suicides to no more than 10.5 per 100,000 people.

US Baseline: 11.7 per 100,000 in 1987

AK Objective : at least a 25 percent rate reduction in 2000

AK Baseline: 23.2 per 100,000 in 1990

AK Status: 23.6 per 100,000 in 1993

7.3 Reduce weapon-related violent deaths to no more than 12.6 per 100,000 people from major causes.

US Baseline: 12.9 per 100,000 by firearms in 1987; 1.9 per 100,000 by knives in 1987

AK Objective : unavailable

AK Baseline: unavailable

AK Status: 19.3 per 100,000 by firearms in 1991 (crude rate); 20.1 per 100,000 by firearms in 1992 (crude rate); 22.5 per 100,000 by firearms in 1993 (crude rate); 2.6 per 100,000 by knife in 1991 (crude rate); 0.0 per 100,000 by knives in 1992 (crude rate); 2.0 per 100,000 by knives in 1993 (crude rate)

9.1 Reduce deaths caused by unintentional injuries to no more than 29.3 per 100,000 people.

US Baseline: 34.5 per 100,000 in 1987

AK Objective: Less than 50 per 100,000 in 2000

AK Baseline: 62.4 per 100,000 in 1990

AK Status: 62.2 per 100,000 in 1991; 62.7 per 100,000 in 1992; 51.0 per 100,000 in 1993

9.4 Reduce deaths from falls and fall-related injuries to no more than 2.3 per 100,000 people.

US Baseline: 2.7 per 100,000 in 1987

AK Objective: Less than 2.9 per 100,000

AK Baseline: Average of 3.4 per 100,000 in 1988-92

AK Status: 4.0 per 100,000 people in 1991 (crude rate); 2.7 per 100,000 people in 1992 (crude rate); .2.8 per 100,000 people in 1993 (crude rate)

9.5 Reduce drowning deaths to no more than 1.3 per 100,000 people.

US Baseline: 2.1 per 100,000 in 1987

AK Objective: Less than 10 per 100,000

AK Baseline: 17.6 per 100,000 in 1989

AK Status: 10.5 per 100,000 people in 1991 (crude rate); 10.6 per 100,000 people in 1992 (crude rate); 8.4 per 100,000 people in 1993 (crude rate)

232 Ambulance Run Reports & Survey

Ambulance services receiving state-funded mini-grants are required to complete an ambulance survey annually. The survey contains information on **activity** and **status**. The activity portion collects data on runs, location of incidents, type of injury/illness, additional information about occupational and substance abuse factors, patient's residence, response times, distance traveled to and from the scene, and emergency transportation vehicles used. The status portion compiles data on personnel/training, records, communications, disaster planning, insurance, and funding. The data collected on **type of injury/illness** (burns, hypothermia, frostbite, poisoning, drowning/near-drowning, fractures, external bleeding, internal bleeding, other trauma, cardiac, diabetes, obstetrics, respiratory, psychiatric, alcohol, drug overdose, and other medical) and **additional information about injury incidents** (e.g., work-related, involving

suspected alcohol use, involving suspected use of drugs other than alcohol) can establish trends. These trends can be used to target and evaluate injury prevention efforts. Unfortunately, before 1993, only those ambulance services receiving mini-grants (volunteer services) were required to submit the annual ambulance report. However, as of 1993, paid services from the Soldotna, Anchorage, Fairbanks, Mat-Su, and Juneau areas also provide information for inclusion in this database. Copies of *Ambulance Survey Reports* can be obtained from the State EMS Office.

The information collected for the annual survey comes from ambulance run reports. In Alaska, a variety of run reports are used to record prehospital patient care. **Section 740** contains sample record forms (which are available from the State EMS Office) as well as a list of essential uniform prehospital EMS data elements from which services can develop a form.

233 Trauma Registry

The Alaska Trauma Registry is an injury surveillance system of the most seriously injured patients and the treatment they have received. The purpose of the Registry is to evaluate the quality of trauma care and the Emergency Medical Services system, and to determine the causes and severity of injuries and the impact of injury prevention programs. (See **Section 590** for additional information on the Alaska Trauma Registry.)

233.1 Progress Towards the Year 2000 Health Objectives

This section shows the progress for some of the *Healthy People 2000* objectives listed in **Section 221**. All rates are age-adjusted unless specified.

9.2 Reduce nonfatal unintentional injuries so that hospitalizations for this condition are no more than 754 per 100,000 people.

US Baseline: 887 per 100,000 in 1988

AK Objective: Less than 600 per 100,000 in 2000

AK Baseline: 630 per 100,000 in 1991 (estimate)

AK Status: 601 per 100,000 in 1991; 586 per 100,000 in 1992; 572 per 100,000 in 1993

9.9 Reduce nonfatal head injuries so that hospitalizations for this condition are no more than 106 per 100,000 people.

US Baseline: 125 per 100,000 in 1988

AK Objective :

AK Baseline:

AK Status: 120 per 100,000 people in 1991 (crude rate); 122 per 100,000 people in 1992 (crude rate); 119 per 100,000 people in 1993 (crude rate)

9.10 Reduce nonfatal spinal cord injuries so that hospitalizations for this condition are no more than 5 per 100,000 people.

US Baseline: 5.9 per 100,000 in 1988

AK Objective :

AK Baseline:

AK Status: 7 per 100,000 people in 1991 (crude rate); 7 per 100,000 people in 1992 (crude rate); 9 per 100,000 people in 1993 (crude rate)

234 Other Sources

234.1 Progress Towards the Year 2000 Health Objectives

This section shows the progress for some of the *Healthy People 2000* objectives listed in **Section 221**. All rates are age-adjusted unless specified.

234.11 Alaska Department of Transportation & Public Facilities

The Division of Statewide Planning, Alaska Department of Transportation and Public Facilities permanently stores motor vehicle crash information in the Highway Analysis System database. This information is available for analysis by qualified users and is summarized in an annual publication, *Alaska Traffic Accidents*. Support for this publication and the Highway Analysis System is provided by the State of Alaska and the Federal Highway Administration of the US Department of Transportation.

4.1 Reduce deaths caused by alcohol-related motor vehicle crashes to no more than 8.5 per 100,000 people.

US Baseline: 9.8 per 100,000 in 1987

AK Objective : Less than 8.5 per 100,000 in 2000

AK Baseline: 11.9 per 100,000

AK Status: Average of 7.9 per 100,000 for 1992-94 (crude rate)

9.3 Reduce deaths caused by motor vehicle crashes to no more than 1.9 per 100 million vehicle miles traveled and 16.8 per 100,000 people.

US Baseline: 2.4 per 100 million vehicle miles traveled in 1987; 18.8 per 100,000 people in 1987

AK Objective : Less than 1.97 per 100 million vehicle miles traveled; Less than 16.8 per 100,000 people

AK Baseline: 2.32 per 100 million vehicle miles traveled in 1992; 18.2 per 100,000 people in 1992

AK Status: 2.5 per 100 million vehicle miles traveled in 1991; 2.8 per 100 million vehicle miles traveled in 1992; 3.0 per 100 million vehicle miles traveled in 1993, 17.7 per 100,000 –people in 1991 (crude rate); 18.4 per 100,000 people in 1992 (crude rate); 19.7 per 100,000 people in 1993 (crude rate)

234.12 National Institute for Occupational Safety & Health

The National Institute for Occupational Safety & Health (NIOSH) is responsible for conducting research to make the nation's work places healthier and safer. In 1991, an Anchorage office was established to study the occupational-related fatality rates by industry and collaborate with other state agencies to reduce these rates according to the PHS's *Year 2000 National Health Objectives*. (See **Section 316.4** for additional information on NIOSH.)

10.1 Reduce deaths from work-related injuries to no more than 4 per 100,000 full-time –workers.

US Baseline: Average of 6 per 100,000 during 1983-87

AK Objective : Less than 27 per 100,000 in 2000

AK Baseline: 34.8 per 100,000 in 1991

AK Status: Average of 26 per 100,000 workers for 1990-94 (crude rate)

SECTION 300

ALASKA'S EMS ORGANIZATIONS

OVERVIEW

This section describes the numerous organizations that compose the Alaska EMS network and is organized in five sub-sections.

- ◆ Agencies that provide **administrative functions** are described in **Section 310**.
- ◆ **Section 320** describes those **agencies** providing **emergency medical services**.
- ◆ **Section 330** describes **facilities** used for the provision of **emergency medical services**.
- ◆ **EMS training and certification** are explained in **Section 340**.
- ◆ **Section 350** highlights those agencies with **services augmenting or supporting emergency medical services**.

For more details on these agencies, refer to the current issue of the *Alaska Emergency Medical Services Directory*, available from the State EMS Office.

310 EMS Administration

This area is divided into six parts, specifically:

- **311 State EMS Section**
- **312 Alaska Advisory Council on EMS**
- **313 Regional & Sub-Area EMS Programs**
- **314 Local EMS Councils**
- **315 EMS Medical Direction**
- **316 Federal Agencies**

311 State EMS Section

The lead agency for the development of the statewide emergency medical services (EMS) system in Alaska is the Emergency Medical Services Section, Division of Public Health, Department of Health and Social Services (DHSS), also referred to as the State EMS Office. The Section staff consists of program administrators and clerical support and is based in Juneau.

The Alaska Legislature placed EMS responsibilities in DHSS in 1977 by passing *Alaska Statute 18.08.010*. This law designated DHSS as the agency responsible for EMS systems development in Alaska; established an eleven-member Alaska Council on EMS appointed by the Governor, and gave DHSS authority to award EMS systems development grants. In 1978, the Legislature passed *Alaska Statute 18.08.080* which gave DHSS the authority to adopt regulations. In 1993, the statute was amended to include trauma care system development. Current regulations encompass:

- Certification of Emergency Medical Technicians (EMTs) and EMT Instructors (7 AAC 26.010 – 7 AAC 26.170);
- Emergency Medical Services Outside Hospitals (7 AAC 26.210 – 7 AAC 26.290);
- Medevac Services, Critical Care Air Ambulance Services, and Specialty Aeromedical Transport Teams (7 AAC 26.310 – 7 AAC 26.400);
- Emergency Trauma Technician Instructors and Approved Emergency Trauma Technician training courses (7 AAC 26.410 – 7 AAC 26.490);
- Defibrillator Technicians and Approved training courses (7 AAC 26.510 – 7 AAC 26.590);
- Responsibilities of Medical Directors (7 AAC 26.610 – 7 AAC 26.700);
- Trauma Centers and Trauma Registry (7 AAC 26.710 – 7 AAC 26.745); and
- Emergency Medical Dispatchers (7 AAC 26.810 – 7 AAC 26.840).

All facets of the EMS Program have been developed with assistance and consultation from the Governors' Alaska Council on EMS, also known as ACEMS (see **Section 312**). The EMS Section also receives medical direction from a physician on contract, the State EMS Medical Director (see **Section 315**).

Coordination is another principal function of the EMS Section. The Section coordinates federal, state and regional, and paid and volunteer agencies involved in Alaska's EMS system. By providing grants and overall program direction, it works through regional EMS councils, non-profit health corporations, and borough governments to coordinate air and ground

ambulance agencies and other prehospital care with hospital care, Native health corporations, and other related organizations.

In addition to the coordination, certification, and grants administration roles, the Section also:

- Recommends appropriate EMS standards for Alaska;
- Provides overall medical direction for statewide EMS systems development;
- Certifies personnel and services according to legislative mandates to assure minimum standards of emergency medical care;
- Provides and administers operating and capital grants to EMS regions, and provides assistance for regional EMS systems development;
- Provides technical assistance to regional and local EMS agencies;
- Educates the public on injury prevention, appropriate action in emergencies, and emergency procedures;
- Seeks injury prevention measures and improved emergency medical services through legislative action;
- Assists in development of EMS aspects of statewide disaster planning;
- Monitors and evaluates continued EMS systems development throughout the state;
- Collects and analyzes data from ambulances and hospitals on traumatic injuries, and maintains a trauma registry;
- Assists in development of improved statewide capabilities to provide emergency medical services for children; and
- Plans and prioritizes continued program development based on systematic needs assessments and epidemiologic research.

312 Alaska Council on EMS

The Alaska Council on Emergency Medical Services (ACEMS) is a body of eleven members appointed by the Governor to advise the Department of Health and Social Services on the overall development of a statewide, comprehensive emergency medical services system. Council members are appointed for four-year terms. Three members must be consumers representing three of the four judicial districts, and the remaining eight include: two who are physicians with experience in emergency medicine or trauma care; one registered nurse with emergency nurse

experience; three prehospital emergency care providers; one EMS administrator; and one hospital or Native health care administrator. The Council meets two times each year and additional meetings are occasionally scheduled by teleconference, as needed. Liaison representatives include: the State EMS Medical Director; the Alaska Area Native Health Service's Director; a Highway Safety Planning Agency representative from the Department of Public Safety; a representative from the Division of Emergency Services in the Department of Military & Veterans Affairs; a representative from the Alaska Chapter, American College of Surgeons, Committee on Trauma; and a representative from the Alaska Air National Guard.

The Council's purpose, as explained in *Alaska Statute 18.08.020*, is to:

- Advise the DHSS Commissioner and Governor about planning and implementation of a statewide EMS system; and
- Perform other functions to be prescribed from time to time by applicable state statute or functions that are lawfully prescribed by the Governor of the State or the Commissioner of Health and Social Services.

The Council provides other functions as well. ACEMS:

- Brings together technical resources, experience, and knowledge to assist and advise on the development of the EMS system in Alaska;
- Advises the State EMS staff and EMS regional directors regarding public education and generation of broad community support for the goals of the EMS program;
- Recommends EMS program policy;
- Guides the State EMS Office staff;
- Reviews EMS or EMS-related program proposals on request of the Governor, Commissioner of the Department of Health and Social Services, the Director of the Division of Public Health, or EMS Section staff; and
- Reviews EMS budgetary allocations and program priorities and advises the Commissioner on these matters.

313 Regional & Sub-Area EMS Programs

Every year regional EMS councils, regional Native health organizations, and some large boroughs submit grant applications to the State EMS Section for funding for the upcoming fiscal year. Currently, there are seven EMS regions funded by the state, including the North Slope Borough, Northwest Arctic Borough (Maniilaq Association), Norton Sound Health Corporation, Yukon-Kuskokwim Health Corporation, Interior Region EMS Council, Inc., Southern Region EMS Council, Inc., and Southeast Region EMS Council, Inc. Three of these regions have sub-area programs. Sub-area programs coordinate EMS activities and, in some cases, receive partial funding from the State through their respective regional program. The Interior Region has the Fairbanks North Star Borough Sub-Area. Southern Region has eight sub-areas: Aleutian/Pribilofs, Anchorage & Cook Inlet, Bristol Bay, Copper River, Kenai Peninsula, Kodiak, Matanuska-Susitna, and Prince William Sound.

All of the regional programs maintain full-time staffs that include administrators, clerical support, EMS coordinators and instructors. They assist in developing and sponsoring continuing education programs for nurses, mid-level practitioners, and physicians as well.

A primary function of the regional and sub-area programs is to coordinate EMS activities in their areas. They also:

- Facilitate the development and maintenance of local and regional emergency medical services to provide a continuum of patient care;
- Coordinate with regional, sub-area, and local paid and volunteer agencies involved in EMS;
- Assist local emergency medical services and facilities to meet recommended standards and regulations of the statewide EMS program;
- Provide technical assistance and medical consultation to regional and local EMS agencies and medical facilities;
- Administer funds granted by the Emergency Medical Services Section, as well as income derived from other sources;

- Review community requests for State EMS funds;
- Coordinate and provide training of EMS personnel within the region;
- Educate the public on injury prevention, appropriate action in emergencies, and emergency preparedness;
- Monitor and evaluate regional EMS development;
- Plan and prioritize continued regional program development based on systematic needs assessment; and
- Assist in development of EMS aspects of disaster planning.

313.1 Borough Governments

Some of the regional and sub-area programs are part of a borough government. The Fairbanks North Star Borough, the North Slope Borough, the Matanuska-Susitna Borough, Kenai Peninsula, and the Municipality of Anchorage all have EMS programs, as do most other smaller boroughs in the state. The role of some borough governments in reference to emergency medical services may include:

- Adopting the provision of emergency medical services as an area wide borough responsibility;
- Establishing, by ordinance, and EMS Council to coordinate the delivery of emergency medical services and to advise the Borough administration and assembly on EMS system needs (the Council may include representatives from each of the agencies in the Borough involved in the direct provision of emergency medical patient care, with one or more representatives of the council serving as liaison with regional and state EMS agencies);
- Providing staff and funding support adequate to meet the administrative, training, communications, and equipment needs of EMS services within the borough;
- Contracting with existing EMS-related organization and city governments to provide an approved standard of emergency care, with technical or funding assistance as appropriate;
- Coordinating EMS training, continuing medical education, and state certification for Borough EMS services;
- Coordinating acquisition of EMS equipment and supplies;

- Providing area wide EMS communications and dispatch;
- Establishing a central billing and collection system for each of the prehospital EMS services within the borough;
- Adopting a long-range borough EMS plan;
- Establishing a Medical Advisory Board or designating an EMS Medical Director to approve standing orders, assist with training, and conduct EMS run reviews;
- Developing a public information/education system, including information on accessing the system, training in CPR and first aid, and injury prevention; and
- Planning and implementing a first responder system to ensure quick EMS response to emergencies occurring long distances from ambulance bases.

313.3 Native Regional Health Corporations

Twelve non-profit Alaska Native Regional Health Corporations, corresponding to the for-profit Native regional corporations created by the Alaska Native Claims Settlement Act in 1971, provide the majority of direct health services in many rural parts of the state. Under *Public Law 93-638*, the Indian Self-Determination and Education Assistance Act, these Native Regional Health Corporations are able to contract with the Indian Health Service (IHS) to plan and administer the delivery of health services in their respective areas. Under the authorities granted and funds appropriated through *PL 93-638*, many of the activities and services provided by the Alaska Area Native Health Service gradually are being assumed by the Native Regional Health Corporations, and in many cases by individual Native villages and communities. Contracts or grants with the Department of Health & Social Services also provide for basic services, including EMS.

Regional Native health corporation and native villages and communities offer different mixes of health care and EMS services, personnel, and facilities. Many employ village community health aides and provide a wide variety of resources and programs, which include emergency medical services and injury control programs. There are 142 village clinics staffed by community health aides providing primary emergency care, as well as screening and medical care for minor problems. Former IHS hospitals in Sitka, Kotzebue, Kakanak (Dillingham), and Bethel are now operated by

these corporations as are major clinics in Juneau, Ketchikan, Fairbanks, and Kodiak. Regional health corporations provide health planning and community development services as well.

314 Local EMS Councils

Many communities with active emergency medical services agencies have formed local EMS councils. These councils serve the community by providing a means of resource sharing and coordination, bulk purchasing power, and developing mutual aid agreements. Disaster planning and response can be significantly improved by including local councils since most disasters require multi-agency action.

315 EMS Medical Directors

The Alaska EMS system has four types of medical direction. There is a state-funded contract for medical direction, as well as a federally-funded Alaska Area Native Health Service medical director, volunteer regional medical directors, and primarily volunteer local medical directors. These medical directors have responsibility for maintaining quality prehospital care within their area.

315.1 State EMS System Medical Director

The State EMS System Medical Director:

- Provides overall medical direction for the State EMS program, represents the State EMS program to the medical community and acts as physician liaison in gaining support for regional programs;
- Is available for medical consultation to the EMS Section, Division of Public Health; Director of Public Health; Alaska Council on Emergency Medical Services; and regional EMS program staff;
- Reviews specific program documents supplied by the EMS Section that relate to the systems approach to care of the seriously injured or ill patient and makes appropriate medical recommendations to the Director of Public Health;
- Is responsible for working with medical specialists in developing and updating statewide guidelines for emergency treatment and transport of the ill or injured;

- Reviews the curriculum for ETT, EMT, Paramedic and other EMS training programs and recommends improvements to the State EMS Training Committee, a subcommittee of the Alaska Council on Emergency Medical Services;
- Reviews the EMS components of state and local disaster plans and recommends changes to the EMS Section Chief and to the Division of Emergency Services, Department of Military and Veterans Affairs; and
- Visits programs, attends meetings and workshops within and outside Alaska, to be determined in consultation with the State EMS Section Chief and Alaska Council on Emergency Medical Services.

315.2 Regional EMS System Medical Directors

Regional EMS system medical directors:

- Provide overall medical direction for the regional EMS program, represent the regional EMS program to the medical community and act as physician liaisons in gaining support for local programs;
- Are members of local or regional EMS councils;
- Meet periodically with the regional EMS director or coordinator;
- Evaluate plans, priorities, and long range goals of the EMS organizations in the region;
- Take responsibility for EMS plans in the region by reviewing planning documents and by approving operating and capital budget funding requests;
- Are responsible for working with medical specialists in developing region-specific guidelines for emergency treatment and transport of the ill or injured, adapted from statewide guidelines; and
- Determine priorities for training and continuing education of prehospital and hospital emergency personnel in the region.

315.3 Local EMS Medical Directors

Local Medical Directors, who must be physicians, support the backbone of Emergency Medical Services in Alaska. The responsibilities of physician medical directors are outlined in Alaska regulations (7 ACC 26.610-.6900, *Article 6. Medical Directors*) regarding Emergency Medical Technicians and training programs, defibrillator technicians, ground ambulance

services, air medical services, and mobile intensive care paramedics.

The responsibilities of physician medical directors may include:

- Supervision of the medical care provided by individuals and agencies under their supervision;
- Establishment and review of treatment guidelines and standing orders;
- Critiques of emergency patient care, monthly run review, and quarterly on-site visits;
- Providing education to those under their supervision;
- Approval of continuing medical education programs; and
- Servicing as liaison between EMS providers and agencies and the medical community.

315.4 Federal Alaska Area Native Health Service Medical Director

The Federal AANHS Medical Director:

- Provides overall medical direction for the Native Health Service EMS program in Alaska;
- Represents the Native Health Service EMS program to the medical community;
- Participates in ACEMS as a non-voting member;
- Works closely with the State EMS Program to coordinate priorities;
- Works closely with PHS/IHS physicians for Ems medical direction; and
- Provides ATLS training for physicians employed by the Indian Health Services or Native Health Corporations.

316 Federal Agencies

There are several federal agencies that are programmatically involved in emergency medical services. Some agencies conduct research, others compile statistics; others develop or provide training materials or information to assist EMS departments and providers across the country.

316.1 Department of Agriculture

315.11 Rural Development Administration, Community Facilities Division

This agency promotes economic development in rural America by financing needed community facilities, assisting business development, and developing effective national strategies for rural economic development. The agency assists rural Emergency Medical Services by providing guaranteed loans for essential facilities including major equipment. This includes hospitals, clinics, EMS building, ambulances, CAT scanners, hydraulic tools, radio and telemetry equipment, and so on.

316.2 Department of Commerce***316.21 Federal Communications Commission***

In 1993 the Federal Communications Commission (FCC) adopted an order creating the Emergency Medical Radio Service (EMRS) as a Public Safety Radio Service. EMS users now are recognized by the FCC as full participants in the Public Safety Radio Services and receive the same considerations as other participants. The Emergency Medical Radio Service was created after many years of frustration as a result of blocked transmissions and delays of emergency medical communications caused by overcrowding and sharing frequencies with incompatible radio users within the Special Emergency Radio Service.

316.3 Department of Defense***316.31 Office of the Deputy Assistance Secretary of Defense for Medical Readiness***

This agency develops Department of Defense policy for medical disaster response through the Federal Response Plan and the National Disaster Medical System. Coordinates policy for the provision of Emergency Medical Services on Department of Defense facilities.

316.4 Department of Health & Human Services***316.41 US Public Health Service***

The US Public Health Service (PHS) was established in 1798 to set up marine hospitals for the care of American merchant seamen. Subsequent legislation has vastly broadened its scope of activities. Its mission is to promote the protection and advancement of the nation's physical and mental health. The PHS is a major

component of the US Department of Health and Human Services and consists of eight organizations, specifically:

- Agency for Health Care Policy and Research,
- Agency for Toxic substances and Disease Registry,
- Alcohol, Drug Abuse and Mental Health Administration,
- Centers for Disease Control and Prevention,
- Food and Drug Administration,
- Health Resources and Services Administration,
- Indian Health Service, and
- The National Institutes of Health.

The Centers for Disease Control and Prevention, the Food and Drug Administration, and the Indian Health Service have offices in Alaska.

316.411 Centers for Disease Control and Prevention

The Centers for Disease Control and Prevention (CDC), established within the PHS in 1973, is the federal agency charged with protecting the public health of the nation by providing leadership and direction in the prevention and control of diseases and other preventable conditions and responding to public health emergencies. The CDC is headquartered in Atlanta, Georgia. It is composed of ten major components:

- Epidemiology Program Office,
- International Health Program Office,
- Public Health Practice Program Office,
- National Center for Prevention Services,
- National Center for Environmental Health,
- National Institute for Occupational Safety and Health,
- National Center for Chronic Disease Prevention and Health Promotion,
- National Center for Infectious Diseases,
- National Center for Health Statistics, and
- National Center for Injury Prevention and Control.

The National Institute for Occupational Safety and Health (see following section) opened an Anchorage office in 1991. The National Center for Infectious Diseases has an Arctic Investigations Program located in Anchorage.

316.4111 National Institute for Occupational Safety & Health

The National Institute for Occupational Safety and Health (NIOSH) is responsible for conducting research to make the nation's work places healthier and safer. In 1991, the Division of Safety Research, based in Morgantown, West Virginia, established an office in Anchorage. The Anchorage-based staff are studying the occupational-related fatality rates by industry and collaborating with other federal and state agencies to reduce this rate according to the PHS's *Year 2000 National Health Objectives*.

316.412 IHS, Division of Clinical & Preventive Services, EMS Branch

Manages the Indian Health Service Emergency Medical Services Program, which promotes the optimum level of care possible in the rural areas in which American Indians and Alaska Natives reside. The IHS has developed standards for emergency medical care in native American populations, including: response and transport time; training of prehospital and emergency department personnel; quality assurance; protocols development; and injury prevention and control.

316.4121 Alaska Area Native Health Service

The Indian Health Service (IHS) provides a comprehensive health services delivery system for American Indians and Alaska Natives. The IHS's goal is to raise the health status of American Indians and Alaska Natives to the highest possible level. IHS, which is also called the Alaska Area Native Health Service in Alaska, maintains several facilities through which medical services, including emergency medical services, are provided. The major Indian Health Service facility, the Alaska Native Medical Center in Anchorage, provides a full range of health services. One other hospital, located in Barrow, provides hospital and ambulatory care. There is also a clinic in Metlakatla. (See **Section 313.3** for a listing of former IHS facilities.)

316.42 Maternal & Child Health Bureau, HRSA

The Maternal and Child Health Bureau administers the Emergency Medical Services for Children (EMSC) program, which is designed to reduce mortality and other negative consequences of pediatric emergencies through strengthening the capacity of emergency medical

systems to deal with pediatric trauma and critical illness. EMSC has been designed to be a comprehensive system encompassing injury prevention, acute care, and rehabilitation. The Bureau funds grants for states to improve their emergency medical system of care for children, focusing on issues such as injury prevention, education, financing, data collection, quality assurance, and rehabilitation. The Bureau has also funded targeted issues grants, as well as two resource centers on EMS for children.

316.43 National Center for Injury Prevention & Control, CDC

The National Center for Injury Prevention and Control serves as lead federal agency for control of non-occupational injuries. The Center supports both intramural and extramural programs in prevention, acute care, and rehabilitation of injured persons. The Center's intramural activities in acute care include responsibility for developing the US Public Health Service's *Year 2000 Health Objectives for Emergency Medical Services and Trauma System*. The center is also responsible for development and implementation of the National Plan for Injury Control.

316.44 National Disaster Medical System, Office of Emergency Preparedness, USPHS

The National Disaster Medical System serves as principal advisor to the Department of Health and Human Services' Assistant Secretary for Health for department-wide emergency preparedness matters. This agency develops, directs, coordinates, and executes departmental emergency preparedness plans, programs, and functions.

316.5 Department of Transportation***316.51 National Highway Traffic Safety Administration, EMS Division***

The National Highway Traffic Safety Administration (NHTSA) has many activities which support state EMS programs. NHTSA:

- Conducts research and demonstration projects;
- Distributes state-of-the-art information;
- Provides on-site technical assistance to states and national organizations;
- Develops national standard training curricula;

- Conducts national meetings and workshops on EMS issues;
- Supports the development of national consensus EMS standards;
- Serves as a liaison to national EMS/trauma organizations;
- Administers research and demonstration projects under *Section 403* of the Highway Safety Act; and
- Administers implementation of *Standard 11* of *Section 402* of the *Highway Safety Act of 1966*, which is a block grant program to the states enabling them to improve highway safety. (*Standard 11* on EMS is one of 18 program areas that the states can spend funds on. Each state, through its Governor's Highway Safety Representative, determines which of the programs will receive funding.)

316.52 United States Coast Guard

The mission of the United States Coast Guard (USCG) includes search and rescue (SAR), maritime law enforcement, aids to navigation, military readiness, and marine safety. In Alaska, the Coast Guard is responsible for about 3,854,500 square miles of water for search and rescue purposes. The Alaska operation includes 40 units based throughout the state (the majority operate on the Gulf of Alaska) and air stations in Sitka and Kodiak. Search and rescue is a principle function of the Coast Guard in Alaska.

According to the *National Contingency Plan*, the USCG is the lead federal agency for responding to oil and hazardous substance spills in U.S. coastal waters. The *State & Regional Oil & Hazardous Substance Discharge Prevention & Contingency Plan* details the USCG's role for a spill in Alaska, and is available from the Alaska Department of Environmental Conservation at 907/465-5220.

316.6 Department of Veterans Affairs

316.61 Emergency Medical Preparedness Office

This agency serves as primary back-up to the Department of Defense medical care system for the care of active duty personnel during a military contingency where the Department of Defense Medical Care Facilities are unable to provide care to all returning casualties. The Emergency Medical Preparedness Office develops plans to support the National Response Plan and the National Disaster Medical System.

316.7 Federal Emergency Management Agency

316.71 United States Fire Administration

The USFA conducts research, produces publications, disseminates information, and coordinates with other agencies and organizations to increase the efficiency and effectiveness of fire service management across the country. The purpose of the Emergency Medical Services program of the USFA is to address a major component of this issue – the management of prehospital emergency medical services.

316.72 National Fire Academy

The National Fire Academy presents training programs directed at improving the management of the fire service and other allied professionals. These training programs enhance the ability of emergency services to deal more effectively with fires and other emergencies. Programs are provided at the NFA campus in Emmitsburg, Maryland, and by extension programs throughout the United States.

316.73 State and Local Programs & Support

This agency serves as FEMA's principal point of contact for all federal disaster programs and initiatives by administering and coordinating federal assistance. Responsibilities include providing technical and financial assistance to state and local governments to support their efforts to:

- Develop and maintain an effective emergency management and response capability.
- Reduce the effects of disasters upon life and property.
- Mitigate the causes of emergencies during disasters by developing local programs which are intended to prevent the loss of life and property.
- Develop plans and procedures for consequence management of terrorism.

316.74 Federal Interagency Committee on EMS

The Federal Interagency Committee EMS, chaired by the United States Fire Administration, serves as a forum to establish and facilitate effective communication and coordination between and among federal departments and

agencies involved in activities related to EMS. The Committee develops among various federal departments and agencies recommendations which will:

- Strengthen the communication and coordination of federal policies and programs;
- Promote harmony and avoid duplication of efforts; and
- Promote uniformity of standards and policies consistent with existing federal laws and regulations regarding EMS.

The Committee also maintains a liaison with national EMS trade and professional organizations and associations to ensure effective two-way communications concerning EMS issues, committee policies and programs, and federal activities related to EMS.

316.8 General Services Administration

316.81 Vehicle Engineering Branch

The Vehicle Engineering Branch is responsible for developing the federal government's specifications for ground ambulances (federal specifications KKK-A-1822-C) which are used by ambulance manufacturers as a basic blueprint for their vehicles.

320 Prehospital EMS

This area is divided into three parts, specifically:

- ◆ **321 First Responder Services**
- ◆ **322 Ground Ambulance Services**
- ◆ **323 Air Medical Services**

321 First Responders

A First Responder is an individual who, as part of her or his activities, is likely to be the initial medical rescuer at the scene of an emergency and provides emergency care until the ambulance arrives, or another means of transportation to a medical facility is arranged. Firefighters, law enforcement personnel, community health aides, and search and rescue personnel are all examples of First Responders. Some ambulance services have First Responders trained and located at strategic points in their service areas.

There is a national standard curriculum for First Responders that is approximately 40 hours in length. The Emergency Trauma Technician (ETT) is the Alaskan equivalent of the First Responder, and persons trained to this level are found in virtually all parts of the state (see **Section 342**). An individual or organization is not required to be certified to provide emergency care at the ETT level. However, it is recommended that they all have a certificate of course completion. There are numerous First Responder services in Alaska. For an up-to-date listing, refer to the current *Alaska EMS Directory* (available from the State EMS Office).

322 Ground Ambulance Services

Emergency Medical Service regulations provide for certification of Basic Life Support (BLS) and Advanced Life Support (ALS) Prehospital Emergency Medical Services.

To ensure a minimum level of patient care in Alaska, state statutes and regulations require that ground ambulance services providing advanced life support patient care become certified. Each certified service must have a sponsoring physician who oversees all the medical personnel and reviews patient care. Those services that can provide advanced life support (ALS) services 24 hours a day, seven days a week must become state-certified as ALS services. If a service provides ALS occasionally, it must become state-certified as a Basic Life Support (BLS) service, with a notation on its certificate that ALS services are sometimes provided. Ambulance services that provide only BLS service are not required to become certified but may choose to do so if they can meet state BLS certification standards 24 hours a day, seven days a week.

323 Air Medical Services

Services that advertise to provide air medical services, or routinely provide advanced life support air medical services, are required by state statute and regulations to become certified to provide the public with a minimum level of patient care. There are three levels of certification: medevac, critical care air ambulance, and speciality aeromedical transport team. Each level must have a physician medical director responsible for the medical personnel

and for review of patient care. The requirements for medical personnel, aircraft, and medical equipment become more advanced with each level. See Section 510 for more information.

330 EMS Facilities

Medical facilities in Alaska are owned and operated by four sources: the federal government (military and the Alaska Area Native Health Service), the private sector, local governments, and the State of Alaska. (See the Alaska EMS Directory for a listing of the EMS-related facilities.)

This area is divided into two parts, specifically:

- ◆ **331 Acute Care Hospitals**
- ◆ **332 Emergency Care Clinics**

331 Acute Care Hospitals

There are 24 acute health care hospitals in Alaska. Six of these facilities are located in Southeast, thirteen in Southcentral Alaska and five in the Northern region. Six hospitals are Alaska Area Native Health Service or Native Health Corporation hospitals, two are military, and the rest are private or community hospitals. In 1991, the distribution of the state's 1,632 acute care beds in these facilities ranged from twelve at the Wrangell General Hospital in Southeast to 365 at Providence Hospital in Anchorage. All of these facilities provide emergency services. Three of these hospitals – Providence and Alaska Regional Hospitals in Anchorage, and the Alaska Native Medical Center in Anchorage – are close to having sufficient resources for designation as Level II Trauma Centers, using American College of Surgeons Committee on Trauma criteria. (For more detail on acute care hospitals, see the current *Alaska Hospital Survey* available from the Planning Section, Division of Administrative Services, DHSS, 907/465-3015.)

332 Emergency Care Clinics

There are many emergency care clinics in Alaska. These are health clinics where minor conditions may be treated by a physician, physician's assistant, or nurse practitioner, and

sometimes with the advice of a physician by radio or telephone. Many smaller Native villages also have clinics staffed with Community Health Aides.

340 EMS Training

EMS training and certification ensure that proficient frontline workers deliver emergency medical services in Alaska.

This area is divided into three parts, specifically:

- ◆ **341 State Certification**
- ◆ **342 Levels of EMS Providers**
- ◆ **343 Training Agencies**

342 State Certification

There are two state agencies involved in the certification and licensing of EMS personnel in Alaska: the Department of Health & Social Services (DHSS) and the Department of Commerce & Economic Development. The latter provides administration and support to the Alaska State Medical Board, which licenses Mobile Intensive Care Paramedics. State statute empowers the DHSS to develop regulations to carry out its mission of statewide EMS system development. In 1981 the EMS Section developed regulations regarding EMTs, EMT Instructors, and EMT training programs. The regulations address training requirements, qualifications for certification and recertification, applicants from out-of-state, suspension and revocation of certificates, and many other matters. The DHSS also has developed regulations concerning ground ambulance services, air medical services, Emergency Trauma Technician (ETT) Instructors and ETT training programs, defibrillator technicians, physician medical directors, emergency medical dispatchers (EMDs), and trauma center certification. Certification regulations ensure standardized training, certification, and recertification for emergency medical responders in Alaska. (See **Section 311** for regulation references.) The State EMS Office also advises the Alaska State Medical Board regarding eligibility of applicants for Mobile Intensive Care Paramedic licensure.

342 Levels of EMS Providers

State regulations provide for four levels of certified EMTs, including EMT I (basic), ETT-Defibrillator (ETT-D) or EMT-Defibrillator (EMT-D), EMT II (intermediate), and EMT III (intermediate plus some advanced cardiac skills). Under the Alaska Medical Practice Act, Mobile Intensive Care Paramedics (MICPs), also known as EMT-Paramedics in some states, are licensed by the State Medical Board, but all applications are reviewed by the State EMS Training Coordinator.

342.1 ETT

The Emergency Trauma Technician (ETT) training program is at least 44 hours in length and teaches the basics of emergency medical care. The course has evolved significantly since it was first developed in Southeast Alaska for use in logging camps. Courses are taught by certified instructors and occur throughout the state. The course exceeds the content found in the 1995 revision of the National Standard First Responder Training program. Emergency Trauma Technicians are not technically certified by the State of Alaska and therefore do not receive the limited immunity from liability conferred by AS 18.08.086.

342.2 EMT-I

The Emergency Medical Technician-I (EMT-I) is equivalent to the National Standard EMT-Basic, as described in the United States Department of Transportation (USDOT) curriculum revised in 1994, excluding the use of automated external defibrillators and advanced airway devices. The EMT provides basic life support such as splinting, hemorrhage control, oxygen therapy and suction, and CPR. Mastery of EMT-I level knowledge and techniques must occur before moving to an EMT-II level of certification. The course is at least 120 hours.

342.3 Defibrillator Technician

It is widely recognized that early defibrillation provides the best chance of survival in out-of-hospital cardiac arrest. Defibrillation is an advanced life support skill and until the advent of automated defibrillators (fully automatic and semi-automatic devices), defibrillation in Alaska was only performed at the EMT-III level and above. EMT-I personnel trained and certified as defibrillator technicians may use either manual or automated devices. ETTs may be trained and

certified as defibrillator technicians to use automated. Defibrillator Technicians must have physician medical directors and operate in locations with access to advanced cardiac life support, including endotracheal intubation and lidocaine. Training courses for manual and automated devices are sixteen and eight hours respectively.

342.4 EMT-II

The Emergency medical Technician II (EMT-II) level exceeds the National Standard Training Program EMT-Intermediate, developed by the USDOT. The EMT-II class is at least 50 hours in length and prepares the student to initiate intravenous lines and administer fluids and certain medications. A person must have six months experience as an EMT-I in order to be certified as an EMT-II. Certification as an EMT-II also requires that the individual be under sponsorship of a DHSS-approved physician medical director.

342.5 EMT-III

The Emergency Medical Technician III (EMT-III) program is designed to add advanced cardiac care skills to those the EMT has learned already. Included in the training program is the use of morphine, lidocaine, atropine, and epinephrine. The EMT-III training program is at least 50 hours in length. A person must have six months experience as an EMT-II to be certified as an EMT-III. As with the EMT-II, certification requires that the individual be under the sponsorship of a DHSS-approved physician medical director.

342.6 MICP

Mobile Intensive Care Paramedics (MICPs) are licensed by the Alaska Department of Commerce and Economic Development through the Alaska State Medical Board, with assistance from the State EMS Section staff. MICP's provide care beyond the EMT-III level and function under the direct or indirect supervision (standing orders, etc.) of a physician. Paramedics are found in the most populated areas of Alaska, including Anchorage, Fairbanks, Kenai, Soldotna, Nikiski, Barrow, Nome, Kotzebue, Juneau, Sitka, and Ketchikan, and in a few other smaller communities. In some of these communities, all prehospital emergency medical care is provided by Mobile Intensive Care paramedics. In others, the MICP may act as a supervisor or EMS director.

343 Training Agencies

EMS training in Alaska is provided by both public and private agencies. Refer to the current Alaska EMS Directory for an up-to-date listing as well as the Regional EMS Councils.

350 Support Services

Many other agencies provide services that either dovetail with, or enhance, the services provided in Alaska's EMS system. This section is divided into six parts, specifically:

- ◆ **351 Disaster Services**
- ◆ **352 Fire Emergency Services**
- ◆ **353 Hazardous Materials Services**
- ◆ **354 Search & Rescue**
- ◆ **355 Other Health Services**
- ◆ **356 Injury Prevention**

351 Disaster Services

Alaska's disaster service agencies include the Division of Emergency Services in the Department of Military and Veterans Affairs, and the American Red Cross. Other state, local, federal, and private agencies may be called upon to provide assistance depending on the nature and magnitude of the disaster. See the *Alaska EMS Directory* for information on these other resources.

351.1 Division of Emergency Services

The Alaska Disaster Act (*Alaska Statute 26.23*) of 1977 created the Alaska Division of Emergency Services (ADES) within the Department of Military and Veterans Affairs. The Division is charged with the responsibility of coordinating all state disaster response and recovery efforts. ADES ensures that communities have been warned in the event of a potential or actual disaster and that local governments have responded to protect property, save lives, and restore vital services. ADES also provides for the human needs of disaster victims. Training of public officials, both state and local, in emergency management planning and preparedness is an important part of the

Division's activities. The Division maintains a 24-hour warning system for rapidly disseminating warnings and dispatching trained disaster workers statewide.

351.2 American Red Cross

The Red Cross Disaster Program offers emergency assistance to victims of disaster and emergency workers. The United States Congress gave the American Red Cross (ARC) responsibility and authority to coordinate the federal response to emergencies and major disasters as declared by the United States President. Its major role is to coordinate and move human resources and emergency supplies to meet the human needs created by a disaster. When a local chapter is unable to meet the needs of victims, the regional and national organizations provide assistance.

Red Cross assistance includes food, clothing, shelter, first aid, and other basic elements of comfort and survival. Volunteers operate short-term shelters, fixed or mobile feeding stations, emergency first aid stations, and provide temporary individual assistance. Long-term assistance includes counseling and assistance to identify and access other resources, or may supply additional direct assistance to enable victims to re-establish themselves. The Red Cross also handles inquiries from concerned friends and relatives regarding the well being of individuals living in the disaster zone.

Training offered by the Red Cross includes shelter management, mass feeding, disaster services regulations and procedures, survey/damage assessment, and supervisory courses; as well as the various water safety, first aid, and CPR courses it is well known for. The main training center in Alaska is in Anchorage. There are three Red Cross Chapters in Alaska: Interior Alaska (Fairbanks-based), Southcentral (Anchorage-based), and Southeast (Juneau-based).

352 Fire Emergency Services

The *Alaska EMS Directory* contains resource listings for **Chemical, Shipboard and Forest Fire Fighting**.

353 Hazardous Materials Services

Hazardous Materials Services are divided into three areas: **Identification and Information, Emergency Response, and Required Reporting of Spills/Releases.** See the *Alaska EMS Directory* for more information. (*Alaska EMS Goals* has other resources on hazardous materials. **Section 530** provides additional information about hazardous materials planning, training, and other resources. **Sections 732-735** list recommended equipment and supplies for ambulance services, clinics, and hospitals as well.)

354 Search & Rescue

Several agencies participate in search and rescue activities in Alaska. The *Alaska EMS Directory* contains listings for the **Alaska State Troopers, Mountain Rescue Teams, Search and Rescue Operations, and Search Dogs.** Information sources in the *Directory* include **Avalanche and Mountain Weather Forecast, Earthquake/Tsunami Information, and Weather Reports.** **Hyperbaric Facilities** are listed in the *Directory* as well.

355 Other Health Services

355.1 Disease Outbreaks

There are two primary agencies in Alaska with roles in disease outbreak response. The Division of Environmental Health of the Alaska Department of Environmental Conservation plays a role in investigating foodborne and waterborne illnesses. The Section of Epidemiology, Division of Public Health, Alaska Department of Health & Social Services has a major role in disease outbreaks. Investigators respond to epidemiological emergencies, such as those caused by botulism or a communicable disease outbreak.

355.2 Poison Emergencies

Alaska has one Poison Control Center, which is located at Providence Hospital in Anchorage.

355.3 Radiological Emergencies

Radiological emergency resources are available through the Division of Emergency Services, Alaska Department of Military & Veterans' Affairs or the Section of Laboratories, Division of Public Health, Alaska Department of Health & Social Services.

356 Injury Prevention

Many agencies offer injury prevention activities in Alaska. Most programs limit activities to a particular population, geographic area, or a few categories of injury. Many Alaskan organizations offering or supporting injury prevention are listed in the *Alaska EMS Directory*. Categories in the *Directory* include: **Statewide, Regional, Local Contacts, and Research and Data.**

There are several notable injury prevention projects that have been completed in Alaska. The following are a few examples. The Alaska Marine Safety Education Association has developed a statewide network of trainers as well as boating safety/drowning prevention programs. The Yukon-Kuskokwim Health Corporation, one of the regional Native health corporations, runs a Personal Flotation Device Use Program. Smoke detector installation programs are conducted by several organizations, including the Alaska Area Native Health Service, Safe Kids, and the Municipality of Anchorage. Providence Hospital's Safe Kids Program operates an extensive injury prevention program including child health fairs, safety seats, smoke detectors, and several publications. Southeast Region EMS Council has developed an injury prevention course for EMTs which is available for CMEs. Public Health Centers provide parent counseling covering injury prevention topics during Well-Child Clinics. Local fire departments conduct the "Stop, Drop and Roll" Burn Prevention Program.

356.1 American Heart Association, Alaska Affiliate

The American Heart Association (AHA) is a non-profit health organization funded by private contributions. Its mission is to reduce disability and death from cardiovascular diseases and stroke. The AHA was formed in 1924 as a professional society by pioneering cardiologists. The Alaska Affiliate has been incorporated since 1958. AHA's first priority is the prevention of heart disease, and this is achieved through cardiovascular research, and professional and public education programs.

The AHA has developed programs and designed materials to inform people about, and involve them in, the fight against cardiovascular disease and stroke. AHA targets four major areas:

work, school, community, and health. Programs provide the latest information on high blood pressure, smoking, nutrition, and exercise in formats for all age groups.

Emergency cardiac care encompasses basic life support, advanced cardiac life support, pediatric basic and advanced life support, education, communications, and transport. The AHA training network is a structure for education that incorporates quality control. Emergency cardiac care is an integral part of a community-wide emergency medical services system.

SECTION 400 EMS FRAMEWORK

OVERVIEW

By outlining what emergency medical services and resources should be available to Alaskans and visitors in specific settings, the framework in this guide provides a means of systematically working towards achieving the desired EMS system. The framework was adapted from two models. The first is the community levels-of-care model. The second model consists of the program components mandated by the federal EMS program, consensus standards for statewide EMS systems developed by the National Highway Traffic Safety Administration, USDOT, in the late 1980s, and components from the *Model Trauma Care System Plan* developed by the Health Resources and Services Administration, US Department of Health and Human Services in 1992.

This section is divided into four sub-sections:

- ◆ **Section 410**
Community Levels-of-Care Model
- ◆ **Section 420**
Federal EMS Planning Model
- ◆ **Section 430**
Alaska EMS System
- ◆ **Section 440**
Prehospital/Hospital/Post-Hospital Index

System goals, which guide state, regional, and local EMS programs to plan for, develop, and sustain appropriate levels of emergency medical care in Alaska, are listed in **Section 430**. The planning model described in this section is used to organize the community recommendations in **Section 600**. **Section 440** arranges the framework in **Section 430** into prehospital, hospital, and post-hospital groups.

410 Community Levels-of-Care

411 Origin

The Alaska health care system, as described in the *1984 Alaska State Health Plan*, utilizes a regional approach for organization. This approach, the **community levels-of-care concept**, identifies appropriate health resources and services for five community levels. These levels are:

- **Level I – Village**
- **Level II – Sub-Regional Center**
- **Level III – Regional Center**
- **Level IV – Urban Center**
- **Level V – Metropolis**

412 Service Linkage

A central element of the levels-of-care concept is service linkage. If appropriate services are unavailable in a Level I community, assistance may be sought from a Level II community. If appropriate services are unavailable at a Level II community, care may be sought from a Level III community, and so on. This coordination of health care provides a continuum of service delivery and referral patterns, from one level to the next higher level. However, in some instances, a community will relate directly to the level capable of providing appropriate care efficiently, bypassing other levels of communities. For example, an injured person in a Level II community may be transported directly to a medical facility in a Level IV community.

413 EMS characteristics

The second revision of *Alaska EMS Goals* (1984) separated Level I and II categories into **isolated communities** and **those with road access to other communities providing a higher level of service** (or **highway communities**). The differences between these two community types became apparent between the 1981 and 1984 editions. Even though the *Alaska State Health Plan* classified communities in clusters based on proximity and accessibility, it did not make an isolated/highway distinction. The 1993 edition and this revision define highway communities as **those with year-round road access to a community with a hospital within 60 minutes or less under normal conditions**.

The third revision of *Alaska EMS Goals* (1993) modified the community level-of-care concept.

The original Level III was split into Level III and Level IV, and the original Level IV and Level V became Level V and Level VI (see **Section 414**).

Although the *Alaska State Health Plan* examined several characteristics to determine a community's level of care, only three characteristics are significant in reference to emergency medical services. These are **health care services, access and population** (see **Table 410-1**). When a community fits into more than one level based on these three characteristics, **access** has priority over **population** and **health care services** has priority over **access**.

health care services > access > population

414 Community Classifications

This planning guide uses nine community classifications. These include:

- **Level I Highway Village**
- **Level I Highway Village**
- **Level II Isolated Town/Sub-Regional Center**
- **Level II Highway Town/Sub-Regional Center**
- **Level III Large Town/Regional Center**
- **Level IV Small City**
- **Level V Urban Center**
- **Level VI Metropolis**
- **Other Areas**

Other Areas is a conglomerate of four types:

Very Small Communities are those with a population of 25 people or less, such as homesteads, farms, isolated residences, vacation areas, communes, fish camps, hunting and fishing lodges, and guide services.

Highways refers to those major roadways in the state, including: the **Alaska Highway**, the **Copper River Highway**, the **Dalton Highway**, the **Denali Highway**, the **Edgerton Highway/McCarthy Road**, the **Elliott Highway**, the **George Parks Highway**, the **Glenn Highway**, the **Haines Highway**, the **Klondike Highway**, the **Richardson Highway**, the **Seward Highway**, the **Steese Highway**, the **Sterling Highway**, and the **Taylor Highway/Klondike Loop**. The **Marine Highway** is Alaska's marine transportation system which provides year-round ferry service to Alaska's

coastal communities and to Washington and British Columbia.

There are two types of **At-Risk Sites**. **Schools** refers to those private and public institutions that provide instruction to children. High-Risk Work Sites are industrial activity areas, either permanent or mobile, involved in what the Alaska Office of the National Institute for Occupational Safety and Health considers high-risk industries (based on fatalities for 1991 and 1992), including: agriculture/forestry/fishing, transportation/communications/public utilities, and manufacturing. These work-sites can be either **Remote** (one hour or more from a medical facility under normal conditions) or **Nearby** (less than one hour from a medical service by road access under normal conditions).

415 Other Characteristics

Knowing certain characteristics about a community can make planning for emergency medical service easier. **Section 800 – Community Index** contains other factors about a community that are not a part of the planning framework outlined in **Table 410-1**. A description of the other types of information included in the index follows. If you need to know more about these characteristics, contact the regional or sub-area EMS office for the particular community (see **Section 140** for a list).

Table 410-I
EMS Community Levels-of-Care

COMMUNITY TYPE	POPULATION	EMS	GENERAL ACCESS
LEVEL I			
Isolated Village	Usually 50 - 1,000 in immediate community	Community clinic with a CHA or EMT	Limited air or marine highway access to a Level III or higher community; road access exceeds 60 miles
Highway Village	Usually 50 - 1,000 in immediate community	Community clinic with a CHA or EMT	Limited air or marine highway access to a Level III or higher community; year-round, 60 minute or less road access
LEVEL II			
Isolated Sub-Regional Center or Town	Usually 500 - 3,000 + in immediate community	Community clinic with PA, NP, MD or DO; health care services provided by public or private sector	Marine highway or daily air access to closest Level III or higher community; air service to Level I communities in area
Highway Sub-Regional Center or Town	Usually 500 - 3,000 + in immediate community	Community clinic with a PA, NP, MD or DO; health care services provided by public or private sector	Marine highway or daily air access to closest Level III or higher community; year-round 60 minute or less road access
LEVEL III			
Large Town or Regional Center	Usually 2,000 - 10,000 + in immediate community, providing services to a regional population	Community hospital and physicians; health care service agencies include both public and private	Daily airline service to Level III, IV & V communities; air service to Level I & II communities in area; road or marine highway access all year
LEVEL IV			
Small City	Usually 10,000 - 100,000 in immediate community, providing services to a larger regional population	Hospitals with a 24 hour staffed ED and full continuum of care; multiple providers of health care and other services including both public and private programs	Daily airline service to Level II, III, IV & V communities; road or marine highway access all year
LEVEL V			
Urban Center	Usually 100,000 + in immediate community, providing services to a statewide population	Some specialized medical and rehabilitation services for low incidence problems	Daily airline service to Level II, III, IV & V communities; road or marine highway access all year
OTHER AREAS			
Very Small Communities	25 - 150 in immediate community	Designated area for equipment and patient care with a CHA, ETT or EMT	Limited road, air or marine highway access to a Level III or higher community
Major Highways	Variable	Level II ambulance service every 100 miles & first responder service every 50 miles	Year-round, 60 minute or less ground transportation or air access to a Level III or higher community
Marine Highways	Variable	Safety officer with ETT or EMT training	Helicopter or fixed wing access
At-Risk Sites			
Schools	Variable	Safety coordinator & at least two ETTs	Air, marine & ground transportation access
High-Risk Work Sites: Remote	Variable	ETT or EMT for every 25 employees	More than one hour from a medical service
High-Risk Work Sites: Nearby	Variable	ETT or EMT for every 50 employees	One hour or less from a medical service

415.1 Regions & Sub-Areas

Each community is identified by the region and sub-area in which it belongs. Descriptions of the Alaska EMS Regions and Sub-Areas are found in **Section 140**.

415.2 Access

How people can get to and from a community is an important factor in planning for EMS services.

Alaskan communities can be reached by road, water, and/or air. The nearness, or proximity, of another community may also be a key to access.

Road access has three community categories:

1. **highway**: linked to the Alaska highway network throughout the year.
2. **summer highway**: linked by the Alaska highway network during the summer only.
3. **limited highway**: outlying roads but no linkage to the Alaska highway network.

Water access has two divisions, **ocean access** and **other water access**. **Ocean access** has three community categories:

1. **marine**: linked by the Alaska marine highway system.
2. **limited marine**: occasional marine highway service.
3. **coastal**: ocean access without linkage to the marine highway system.

Other water access has two categories:

1. **river**: along a river used as a primary transportation route (boating, winter ice road).
2. **lake**: along a lake used as a primary transportation route (boating, winter ice road).

Air access has six categories:

1. **airstrip**: authorized landing area with small plane capacity only.
2. **airport**: authorized landing area with regular, scheduled commercial air service.
3. **floatplane**: landing area available for float planes (seaplanes).
4. **seaport**: designated landing area for float planes (seaplanes).

5. **helicopter**: landing area available for helicopters.
6. **heliport**: designated landing area for helicopters.

Proximity to another community has one category:

1. **satellite**: road access to a higher level community in 30 minutes or less under normal conditions.

415.3 Seasonal Changes

Alaskan communities have several types of population-related, seasonal impacts. Besides changes in populations, there can be increases or decreases in **transportation** (boat, motor vehicle, or airplane traffic), **EMS responders** (physicians, PAs, MICPs, CHAs, RNs, EMTs, or ETTs) and **industrial activity** (both high-risk – construction, fishing, hunting, logging, and mining – and low risk – tourism). These impacts can occur during any season, although activities such as tourism tend to be greater in the summer months. Most changes cause increases (such as tourism bringing people into an area, increasing population and transportation), but others cause decreases (such as people leaving communities to fish for the summer, producing a population and, in some cases, and EMS personnel decrease). See **Section 541** for further explanation.

415.4 Providers & 911 Access

This section shows the **type of EMS provider** in a community, specifically whether the EMS provider is a service that is volunteer or paid, a health aide, or military. A **Volunteer EMS Service** means that the majority of EMS providers are volunteer. A **Paid EMS Service** means that the majority of EMS providers are paid. In a few areas, there is a third category called paid-on-call. EMS providers refers to those people in the community with training to provide emergency medical services. In most cases these will be physicians, physician assistants, paramedics, nurses, emergency medical technicians, or emergency trauma technicians. Military includes the United States Air Force, Army, Coast Guard (officially civilian in peacetime), and Navy. Those communities with 911 access are indicated here as well.

420 Federal EMS Planning Model

Fifteen components were identified by the national EMS program in the early 1970s as essential in establishing a comprehensive EMS system. These included: personnel, training, communications, transportation, facilities, critical care, public safety agencies, consumer participation, accessibility to care, patient transfer, coordinated record keeping, public education and information, evaluation, disaster response, and mutual aid agreements.

National direction for EMS system planning also comes from the National Highway Traffic Safety Administration (NHTSA). NHTSA has developed ten national EMS systems consensus standards, which are used for technical assistance team (TAT) reviews of state EMS programs. The ten standards cover:

- Regulation and policy;
- Resource management;
- Human resources and training;
- Transportation;
- Facilities;
- Communications;
- Public information and education;
- Medical direction;
- Trauma systems; and
- Evaluation.

National direction for trauma care system planning and development was provided from the Bureau of Health Resources Development, US Department of Health and Human Services in 1992. The *Model Trauma Care System Plan* identifies nine essential components for the development of an inclusive trauma care system. These include:

- Leadership;
- System development;
- Legislation;
- Finance;
- Public information, education and prevention;
- Human resources;
- Prehospital care;
- Definitive care facilities; and
- Evaluation.

Alaska EMS System

The Alaska EMS System planning model combines the community levels of care model, the federal planning model, and the NHTSA national EMS systems consensus standards described in the previous two sections. The nine community classifications use fourteen components to set system goals for state, regional, and community EMS programs. These system goals are listed under the following 36 sub-component headings. Specific goals that have been developed for the eight levels of community follow in **Section 600**. (Since Alaska currently lacks a metropolis, no recommendations for Level VI Communities have been developed.)

The fourteen components have been honed from seventeen. Two additional components, medical direction and injury prevention, were added to the fifteen identified in the original federal planning initiative. These seventeen components have been reorganized into the fourteen shown in this section. Patient transfer and transportation became *Patient Transfer/Transport*. Consumer participation was added to *Public Education & Information*. Critical care sub-components – regional protocols, appropriate care & transfers, and specialty care centers – have been incorporated into *Training* (Standards), *Patient Transfer/Transport* (Protocols) and *Facilities, Equipment & Supplies*, respectively. **All fourteen components are essential for a comprehensive EMS program.**

431 Fourteen Components

1 PERSONNEL

A Administration

The number of qualified EMS administrators, clinical experts, and technical specialists should be adequate to provide the necessary direction and assistance to statewide and regional EMS systems development.

B Providers

An adequate supply of trained EMS prehospital and hospital personnel to provide quality 24-hour-a-day, 7-day-a-week coverage of emergency medical services appropriate to each level of community should be maintained throughout the state.

2 TRAINING

A Standards

Basic and advanced-trained emergency medical services should be certified or licensed according to state statutes and regulations. Recommended standards for training, continuing education, certification, and curricula for all other categories of emergency care personnel should be established to assure quality of patient care throughout the state. The treatment of the seriously ill or injured patient, from the point of EMS systems entry through rehabilitation, should be carried out according to protocols appropriate for regional capabilities.

B Prehospital Training Personnel

Training programs and resources within Alaska should be adequate to meet all EMS prehospital personnel needs at the appropriate community level. All emergency medical personnel should be trained in the Incident Command System to efficiently integrate into a disaster response as detailed in **Component 11 – Disaster Response**.

C Clinic & Hospital Training Personnel

Continuing education and specialized EMS training for clinic and hospital personnel should be provided within Alaska to the extent possible. All emergency medical clinical and hospital personnel should be trained in the Incident Command System to efficiently integrate into a disaster response as detailed in **Component 11 – Disaster Response**.

3 COMMUNICATIONS

A Local/Regional Systems

Local and regional EMS communications systems should be established and maintained to assure:

- Residents and visitors easy access into a medically controlled system, preferably through a 911 central access number;
- The most rapid dispatch of appropriate personnel and transportation vehicles;
- Coordination among public safety agencies;
- Medical direction communications between prehospital care providers and clinic or hospital-based medical personnel; and
- Flexibility to handle emergencies of any magnitude.

B State System

All EMS communications systems development should be consistent with an overall state EMS communications plan, using existing systems and resources in a cost efficient, practical manner. The state EMS communications plan should link with a statewide communication plan that ensures operation and maintenance of the state-owned emergency communications network.

C Backup & Reliability

All EMS communications systems should maintain a minimum of 95 percent reliability and have a back-up system if the primary system fails. Any new technologies should be evaluated to ensure they provide the same or increased reliability.

4 PATIENT TRANSPORT/TRANSFER

A Standards

Ground and air ambulance services should be certified according to state statutes and regulations.

B Resources

There should be available an adequate number of ground and air ambulance vehicles, suitably staffed and equipped, to ensure timely response and transport from the scene of the medical emergency to medical facilities to minimize personal injury, disability, and loss of life for injury and illness victims. Emergency medical services should have an established mechanism to ensure that airports are accessible and operable when needed for medevacs.

C Protocols

The transfer of seriously ill or injured patients, from the point of EMS systems entry through rehabilitation, should be carried out according to protocols appropriate for local, regional, and state resources. The protocols should address both adult and pediatric emergencies, equipment and personnel needs, and appropriateness of transport means (air versus ground versus water). The protocols should assist caregivers in determining the appropriate facility to meet the patient's medical needs. Patients should be transported in a stabilized condition to an appropriate facility whenever possible. All protocols should be reviewed regularly by

appropriate medical directors, administrators, and others.

5 FACILITIES, EQUIPMENT & SUPPLIES

A Facilities

There should be available an adequate number of accessible medical facilities – clinics, emergency departments, surgical suites, and critical care units – to provide service on a 24-hour-a-day, 7-day-a-week basis, that meet state-recommended standards and are coordinated with other health care facilities within the system. Schools and other facilities should be available and included as resources in plans for disaster responses. Specialized critical medical care units should meet the demands of service areas and cover trauma, burn, spinal cord injury, poisoning, acute cardiac, high risk infant, pediatric, and behavioral emergencies, as well as other acute medical conditions.

B Equipment & Supplies

All emergency medical facilities should have the necessary equipment and supplies to provide services appropriate for each community level within their service area.

6 PUBLIC SAFETY

A Public Safety Agencies

All public safety agencies involved in emergency medical response should be coordinated to provide the most effective use of training opportunities, appropriately trained personnel and equipment for search and rescue, extrication, emergency patient care, injury prevention, and disaster response. Public safety agencies include police, village public safety officers, fire, search and rescue, lifeguards, park rangers, national ski patrol, and disaster services.

B Environmental Response

Emergency medical services provided during hazardous materials incidents should be coordinated with the appropriate environmental health agency (federal, state or local government), and hazardous materials spill response agency, as specified in the State Master Plan for Oil & Hazardous Substance Discharge Prevention and Contingency.

7 ACCESSIBILITY TO CARE

A Financing Services

Services should be financed so the consumer's ability to pay or economic status does not interfere with delivery of services at the time of need and does not affect the quality of health services provided.

B Equal Care Opportunity

All patients should be provided emergency care and transportation without regard to race, creed, color, sex, national origin, ability to pay, or disability.

C Service Availability

There should be access via telephone (preferably through a 911 central access number) or radio to trained and equipped emergency medical responders within a reasonable time, 24 hours a day, 7 days a week.

8 COORDINATED RECORD KEEPING

A Local Record Keeping

Each service should have an EMS patient record-keeping system that includes a state approved minimum data set, and sufficient quality assurance/improvement information, and is consistent with other medical record keeping systems within the state.

B Regional & State Coordination

All regional EMS data systems development should keep within a coordinated statewide EMS information system. A statewide Patient Care Information System, including a Trauma Registry, involving all acute care hospitals in the state, and collects and reports on traumatic injuries and sudden illnesses in Alaska. A statewide Run Report Database should be maintained to receive summary data from ambulance, air medical, and first responder services.

9 PUBLIC INFORMATION & EDUCATION

A Access

Alaska residents and visitors should know how to access the local EMS system (preferably through a 911 central access number).

B Emergency Response

Alaska residents and visitors should know how to provide basic first aid and CPR, and should know how to survive in emergency situations, such as during tsunamis, earthquakes, and severe storms.

C Consumer Participation

Consumer participation in all aspects of EMS systems planning and policy setting should be encouraged.

10 EVALUATION***A Local Review***

There should be a functioning system for periodic and objective review of the quality and extent of EMS systems development at the local level, for evaluation and needs assessment. All ambulance services and acute care hospitals should have on-going quality improvement programs that include participation by those involved with a particular patient and make use of such resources as the Trauma Registry Quality Assurance reports. Each organization should have a plan for taking corrective action when areas of weakness are identified.

B Regional Review

There should be a functioning system for periodic and objective review of the quality and extent of EMS systems development at the regional level, for evaluation and needs assessment.

C State Review

There should be a functioning system for periodic and objective review of the quality and extent of EMS systems development at the state-level, for evaluation and needs assessment.

11 DISASTER RESPONSE***A Coordination***

Local, regional, statewide, national, and international EMS disaster planning and response agencies should be coordinated with each other and with the Red Cross and the Division of Emergency Services, Department of Military and Veterans Affairs. Each agency should know the roles, responsibilities, access procedures, and limitations of the other agencies. Each agency should have a list of contacts for

specialized resources, such as Critical Incident Stress Debriefing teams, urban and rural search and rescue teams, hazardous materials spill response teams, and heavy rescue teams.

B Transportation

Each agency involved in EMS disaster planning and response should have a plan for transporting additional medical personnel and resources to the disaster site and for transporting the sick and injured from the disaster site to appropriate medical facilities, including medical facilities outside the state when the number of injured victims overwhelms in-state facilities. The plan should include provisions for transporting more patients than local evacuation resources can handle. The transportation plans should provide for the return of personnel and equipment. Each agency should have memoranda of agreement or understandings with applicable agencies to ensure effective integration of response. When applicable, preset agreements should be arranged between agencies to ensure an understanding of allowable expenses and expedite reimbursement of expenses.

C Personnel

An adequate pool of individuals trained in disaster response should be available and procedures for accessing members of this pool should be widely known. Disaster plans should include provisions for accessing and incorporating additional personnel, as well as providing personnel resources to large-scale disaster operations in other parts of the state.

D Training

Each agency involved in EMS disaster planning and response should exercise its disaster plan at least annually. All disaster response personnel should be trained to function in an Incident Command System.

E Facilities & Equipment

Each agency involved in EMS disaster planning and response should have sufficient equipment to rapidly and safely begin to carry out its mission. Each agency plan should provide for equipment resupply and return.

12 MUTUAL AID AGREEMENTS

A Establishment & Maintenance

Each EMS system should provide for the establishment and maintenance of arrangements, such as mutual aid agreements or memoranda of understandings, with neighboring EMS systems for the provision of emergency medical services on a reciprocal basis. Service availability and access (time and distance) are factors to be considered. Efforts should be made to ensure that arrangements exist and are functional with bordering countries as well.

13 MEDICAL DIRECTION***A EMS Medical Directors***

All emergency medical agencies should have oversight by a sponsoring physician or group of physicians to ensure medical appropriateness according to existing statutes and regulations. All emergency medical services ideally should have unrestricted access to on-line physician supervision via the state emergency communications network when applicable.

B Regional/State EMS System Medical Directors

Each region should have oversight and direction by a medical director, and overall medical direction for the state EMS program should be provided by a State EMS Medical Director (see Section 315.3).

14 INJURY PREVENTION***A Program Development***

In cooperation with local, regional, national, and international efforts, a statewide injury prevention program should be developed and maintained, complete with injury prevention plans, policies, and activities (see Section 560).

B Training & Public Education

All program directors and public information/education staff should receive specialized injury prevention training on theory, program development, and evaluation. Alaska residents should know appropriate actions they may take as individuals and as communities to prevent injuries.

440 Prehospital/Hospital/Post-Hospital Index

Health care administrators frequently consider service provision in relationship to a hospital, specifically services before (**prehospital**), during (**hospital**), and after (**post-hospital**) a hospital stay. The index in this section takes the *Alaska EMS Framework* in **Section 430** and identifies the 36 sub-components of the 14 components by this relationship.

441 The Index**1 – Personnel****A – Administration**

- Prehospital

B – Providers

- Prehospital
- Hospital

2 – Training**A – Standards**

- Prehospital
- Hospital
- Post-Hospital

B – Prehospital Training Personnel

- Prehospital

C – Clinic & Hospital Training Personnel

- Prehospital

3 - Communications**A – Local/Regional Systems**

- Prehospital

B – State System

- Prehospital

C – Back-Up & Reliability

- Prehospital

4 – Patient Transport/Transfer**A – Standards**

- Prehospital
- Hospital

B – Resources

- Prehospital

C – Protocols

- Prehospital
- Post-Hospital

5 – Facilities, Equipment & Supplies**A – Facilities**

- Prehospital
- Hospital

B – Equipment & Supplies

- Prehospital
- Hospital

6 – Public Safety**A – Public Safety Agencies**

- Prehospital

B – Environmental Response Agencies

- Prehospital

7 – Accessibility to Care**A – Financing Service**

- Prehospital
- Hospital
- Post-Hospital

B – Equal Care Opportunity

- Prehospital
- Hospital
- Post-Hospital

C – Service Availability

- Prehospital

8 – Coordinated Record Keeping**A – Local Record Keeping**

- Prehospital

B – Regional & State Coordination

- Prehospital
- Hospital

9 – Public Information & Education**A – Access**

- Prehospital
- Hospital
- Post-Hospital

B – Emergency Response

- Prehospital

C – Consumer Participation

- Prehospital
- Hospital
- Post-Hospital

10 - Evaluation**A – Local Review**

- Prehospital
- Hospital
- Post-Hospital

B – Regional Review

- Prehospital
- Hospital
- Post-Hospital

C – State Review

- Prehospital
- Hospital
- Post-Hospital

11 – Disaster Response**A – Coordination**

- Prehospital
- Hospital
- Post-Hospital

B – Transportation

- Prehospital
- Hospital

C – Personnel

- Prehospital
- Hospital
- Post-Hospital

D – Training & Public Education

- Prehospital
- Hospital
- Post-Hospital

E – Facilities & Equipment

- Prehospital

- Hospital
- Post-Hospital

12 – Mutual Aid Agreements

A – Establishment & Maintenance

- Prehospital
- Hospital
- Post-Hospital

13 – Medical Direction

A – EMS Service Medical Directors

- Prehospital

B – Regional/State EMS System Medical Directors

- Prehospital
- Hospital
- Post-Hospital

14 – Injury Prevention

A – Program Development

- Prehospital
- Hospital
- Post-Hospital

B – Training & Public Education

- Prehospital
- Hospital
- Post-Hospital

SECTION 500

SPECIAL SYSTEM TOPICS

OVERVIEW

Within every **system** are items that stand out at the forefront. Although the whole is much greater than the sum of the parts in a functional system, there is a need to further examine parts with a special implication for the system. These items are examined here in the following nine sub-sections:

- ◆ **Section 510 – Air Medical Transport**
- ◆ **Section 520 – Communications**
- ◆ **Section 530 – Hazardous Materials**
- ◆ **Section 540 – Seasonal Impacts**
- ◆ **Section 550 – Quality Assurance & Continuous Quality Improvement**
- ◆ **Section 560 – Injury Prevention & Control**
- ◆ **Section 570 – EMS for Children**
- ◆ **Section 580 – Trauma Care System**
- ◆ **Section 590 – Trauma Registry**

This section's intent is to provide a short explanation of these topics. If you need to know more about these areas, contact the State EMS Office.

510 Air Medical Transport

This section overviews the certification levels for medevac and air ambulance services, and types of air medical services in Alaska. The *Alaska Medevac Manual, Second Edition*, available from the State EMS Office provides additional information.

511 Certification Levels

Statistics show that critically ill or injured patients in rural areas have higher mortality rates than those in urban areas. To help reduce these mortality rates, prompt EMS response and rapid transport to a medical center is needed. In many parts of Alaska, such as wilderness and coastal areas, ground transport to a medical center is

impossible. The only possible rapid transportation for many patients is air transportation.

In 1983, the Medevac Task Force of the Alaska Advisory Council on EMS recommended that an air ambulance/medevac service certification process and a statewide medevac training program be established. Following these recommendations, the State EMS Office adopted regulations for three levels of certification regulations (7 AAC 26.310- 7 AAC 26.390).

The three levels are: **Medevac Service, Critical Care Air Ambulance Service, and Specialty aeromedical Transport Team**. Services advertising the provision of air medical services, or routinely providing advanced life support air medical services, are required by state statutes and regulations to become certified. Each level must have a physician medical director responsible for the medical personnel and for review of patient care. The requirements for **medical personnel, aircraft, medications, and medical equipment** become more advanced with each level of service.

The purpose section states, *“It is not the intent of (these regulations) to prohibit transportation of emergency medical patients via any private aircraft, air taxi service, commercial airline, or government aircraft when it is in the best interest of the patient and no certified service is available within a reasonable period of time, as determined by the medical attendant with the patient. Rather, the intent is to prescribe minimum standards for air medevac services, air ambulance services, or specialty aeromedical transport teams that provide, offer or advertise to provide emergency medical care that includes advanced life support services and transportation of sick or injured patients as a routine service.”*

512 Types of Transports

There are different types of air medical services depending on the location of the patient. The three major types or tiers found in Alaska are described here. Each tier has special considerations.

512.1 Tier 1

A **Tier 1 Air Medical Service** is one that is usually done from a village, town, or remote site

to the nearest regional hospital. Many regional hospitals **do not** have tertiary care units, but they can provide primary and secondary emergency care. Examples of hospitals in this category include those in Bethel, Kotzebue, and Barrow, as well as other small hospitals throughout the state.

512.2 Tier 2

Tier 2 Air Medical Service refers to the transport of a patient from a regional hospital to a referral center. Referral centers include, but are not necessarily limited to, the Alaska Native Medical, and Providence and Alaska Regional Hospitals in Anchorage, and Harborview Trauma Center in Seattle. These patients require intensive care, surgical services, or specialty services not available at most local or regional hospitals.

512.3 Tier 3

Tier 3 Air Medical Service are those originating from the tertiary care center and ending in a specialized hospital such as a major burn unit or Level I trauma center not available in Alaska. Arrangements for these air medical services are initiated by the tertiary care centers. It is rarely appropriate for a patient to go directly from a village or regional hospital to one of these specialized care facilities, due to the long distances to these specialized facilities. Patients often need initial stabilization and evaluation provided at a regional hospital or tertiary care center.

520 Communications

Communications refers to:

1. The means by which individuals activate or access the EMS system;
2. The ability to dispatch appropriate emergency response personnel and vehicles and to give pre-arrival instructions to callers;
3. The ability of prehospital EMS personnel and hospital medical staffs to communicate with each other within the system; and
4. The capability of emergency care providers within the system to communicate with other agencies, community resources, and the public when required.

521 Communications System Components

Prehospital medical care systems must interact with various groups to provide optimal services. To accomplish this, the EMS system must have a coordinated system for communications. Components of the communications system include:

- Access and dispatch;
- Fire, police, other EMS units, and special rescue units;
- Disaster networks; and
- Medical direction and hospital services.

Each of these components is highlighted here.

521.1 Access & Dispatch

An EMS communications system must provide a mechanism so that anyone with an urgent medical need can easily and reliably access emergency medical care. Telephone lines are the most common and reliable. A universal emergency number, 911, for access to all emergency providers, continues to be maintained and implemented with federal, state, and local government support. In those areas without 911 service, access to the emergency system should be made as easy as possible with a well-posted, easy-to-remember, single telephone number. Emergency call boxes, citizen band radios, cellular phones, marine radios, or dedicated land lines are other EMS access options. **911 Enhanced**, also known as **911-E**, is an advanced version of the 911 system that includes automatic number identification, automatic call identification, and automatic ring back.

Dispatch is performed by a pre-designated person, the emergency medical dispatcher (EMD). The EMD is located in the communications dispatch center and has several responsibilities. The EMD:

1. Determines the urgency of the call,
2. Provides pre-arrival instructions to the caller, and
3. Decides on the type of response required.

EMDs need to be able to access and dispatch all available resources. Under ideal circumstances an emergency vehicle should be dispatched in less than 60 seconds.

521.2 Fire, Police, EMS & Rescue Response

A centralized communications center (public safety answering point) is the cornerstone of a system providing coordinated emergency services for daily community needs and for special circumstances, such as multiple casualty incidents and disasters, hazardous materials incidents, and special rescue situations. It is desirable for EMS, police, fire, and other rescue personnel to have direct communications capabilities with each other regarding additional personnel or equipment, logistical issues, and to better coordinate responses.

521.3 Medical Direction & Hospital Personnel

Prehospital personnel need to communicate directly with hospital personnel. Medical direction through voice communications between physician and EMT may be by telephone, but usually involves radio communications. Selection of radios for hospital-to-ambulance communications must take into consideration transmission interference and distances. Medical direction is best provided by experienced physicians who are immediately available for medical consultation. When direct voice communication is not possible, the receiving hospital should be notified through the dispatcher of the patient's condition, expected time of arrival, and other pertinent data that will make the facility better able to respond upon arrival of the patient. Hospitals should be capable of communicating with other hospitals within the system regarding the availability of beds and other resources. This is a necessity during disasters when the triage and transportation of many ill injured victims is necessary.

521.4 Disaster Networks

Communication procedures to be used during a disaster should be well identified so that resources can be coordinated under stress. Backup procedures and equipment should be available in the event of failure of communication components. The ability to override components of the communications system, to block out nonessential communications, must exist as well.

530 Hazardous Materials

In 1984, thousands of people were killed or injured in Bhopal, India as a result of a chemical release from a Union Carbide plant. This incident and others here in the United States have increased virtually everyone's awareness of hazardous materials (hazmat) and the dangers they pose. Concerned about the potential harm that industrial chemicals can cause, the public has demanded preparedness and protection for incidents involving hazardous materials. Laws and standards have been established to address this concern.

531 SARA Title III

Intending to prevent Bhopal-type catastrophes in the United States, Congress passed the **Emergency Planning and Community Right-to-Know Act (EPCRA)** in 1986. EPCRA is also known as **Title III of the Superfund Amendments and Reauthorization Act (SARA)**. This federal law has two broad purposes:

1. To encourage communities to develop emergency plans for chemical releases, and
2. To give citizens access to information about the risks both to human health and the environment, posed by hazardous materials present in their community.

To accomplish this, the federal law requires establishing Local Emergency Planning Committees (LEPC) and State Emergency Response Commissions (SERC). These groups serve as the vehicles for developing local response plans and making information about chemical hazards available to the public. The federal law also requires certain facilities to report information about hazardous materials and requires some of these facilities to participate in local response planning.

In 1987, the Governor established the Alaska State Emergency Response Commission (SERC). Since then, the SERC has worked towards implementing the Emergency Planning and Community Right-to-Know Act in accordance with the federal law.

532 Alaska SERC

Passage of *House Bill 566* in 1990 established the Alaska SERC in state law. *AS 46.13*:

1. Requires the SERC to oversee the implementation of SARA Title III in Alaska,
2. Broadens the definition used in the federal law of hazardous substance to include other hazardous substances and oil, and
3. Broadens the SERC's role, giving it the responsibility for ensuring that local, regional, and statewide contingency plans are well-Integrated and coordinated with other applicable plans such as the National Contingency Plan, other federal plans, and facility and vessel contingency plans.

Passage of *Senate Bill 33* in 1994 changed the SERC. The Commission now oversees planning and response for **all hazards**, both natural and technological. The SERC's program support was transferred from the Department of Environmental Conservation to the Division of Emergency Services, Department of Military and Veterans Affairs. While oil and hazardous substance response depots remain the responsibility of the Department of Environmental Conservation, with the implementation of *SB 33*, DMVA has responsibility for emergency response caches for all hazards. DEC and DMVA will cooperate and not duplicate efforts when placing depots and establishing corps of volunteers.

Since its beginning in 1987, the SERC has approved 19 Local Emergency Planning Committees (LEPCs) for 19 corresponding Local Emergency Planning Districts (LEPDs). See **Figure 530.1**.

Insert Figure 530.1

Local Emergency Planning Districts

533 OSHA 1910.120

The federal Occupational Safety and Health Administration (OSHA) requires training for all employees who participate in emergency response to hazardous substances incidents. More comprehensive requirements for training and other safety programs were published in 1989 as part of *OSHA 1910.120*. That standard regulates “the safety and health of employees in...any emergency response to incidents involving hazardous substances.” EMS personnel are specifically listed among those who must be trained. The actual training should be tailored to fit the work that individuals are expected to carry out.

The OSHA standard gives detailed descriptions of the training required for emergency responders. A four-tiered training system is presented. Each tier corresponds to a different level of emergency-response performance and skills. The performance levels correspond to different roles during an incident. The four levels include:

1. First-responder awareness,
2. First-responder operations,
3. Hazardous materials technician, and
4. Hazardous materials specialist.

534 NFPA 473

In 1992, the National Fire Protection Association (NFPA) issued a standard, *NFPA 473*, that **recommends** competencies for EMS hazmat responders beyond the **required** federal OSHA regulation. NFPA’s Technical Committee on Hazardous Materials Response Personnel prepared *NFPA 473, Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents*.

This standard identifies the levels of competence required of emergency medical services personnel who respond to hazardous materials incidents. It specifically covers the requirements for **basic life support** and **advanced life support** personnel in the **prehospital setting**. Competencies for EMS hazmat responders are provided at two levels. Level I responders function in the cold zone. Level II responders function in the warm zone. (The area involved in a hazardous materials release response is

divided into three zones. The hot zone is the area immediately surrounding a release source; it is the area where contamination does or can occur. The warm zone is the decontamination area and hot zone support area. The cold zone is the support area for the warm zone; it is also known as the clean area.) These standards are **recommendations** for minimum requirements of competence and to enhance the safety and protection of response personnel and all components of the emergency medical services system. It is not the intent of this standard to restrict any jurisdiction from exceeding these minimum requirements.

535 Alaska’s Situation

Potentially dangerous materials are manufactured, stored, and transported in Alaska. These materials do not present a threat in controlled environments; however, unintentional releases can result in a hazardous situation. Several major highways (listed in **Section 414**), the Alaska railroad, numerous airports (see **Section 800**), the Trans-Alaska Pipeline, and various marine transport routes (such as the Inside Passage in Southeast Alaska) are all major hauling routes with the potential for an incident involving hazardous materials.

EMS personnel are frequently the first trained responders to arrive at the scene of an incident involving hazardous materials. The hazmat capabilities of EMS agencies vary across the state, and are often related to the availability of a fire department hazmat team. A major dilemma is that EMS services in the smallest communities often depend upon volunteer staffs, have minimal immediate hazmat backup, and may require –temporary, self-sufficient response capabilities for hazmat incidents. Nonetheless, the smaller communities are likely to have the fewest hazardous substances and are likely to be more aware of the hazards that do exist. In 1991 the State EMS Office sent a questionnaire to 70 certified ground ambulance services in Alaska. Thirty-nine questionnaires were completed and returned. Twelve EMS services reported responding to incidents involving hazardous substances in 1990. The other 27 services reported no hazmat responses in 1990 or did not respond to the question. The results of this survey are shown in **Table 530.1**.

Table 530.1
Ground Ambulance Response to Hazardous
Material Incidents, 1990

COMMUNITY	INCIDENT #
Barrow	1
Chignik Bay	2
Fairbanks	3
Fairbanks Airport	2
Ketchikan	1
Klawock	1
Kodiak	10
Kotzebue	3
Nikiski	6
Sand Point	4
Sitka	1
Thorne Bay	15
TOTAL	49

536 EMS Involvement

There are three ways EMS personnel can be involved in the hazmat effort.

536.1 Planning

The SERC is required by law to appoint Local Emergency Planning Committees (LEPC) for each LEPD. LEPC members represent a broad cross-section of a community. The thirteen membership categories include: elected officials, law enforcement, civil defense/emergency management, firefighting, **first aid, health, hospital**, local environmental, transportation, broadcast and print media, community groups, facilities, and public.

LEPCs are responsible for developing **local emergency response plans** for oil and hazardous substances releases within their LEPD. According to SARA, those plans should *include methods and procedures to be followed by...local emergency and medical personnel to respond to any release... (PL 99-499, §303(c)(2))*. In addition, plans should contain *training programs, including schedules for training of local emergency response and medical personnel (PL 99-499, §303(c)(8))*.

Active involvement by EMS personnel in each LEPC will help ensure that EMS concerns are adequately addressed. Interested EMS personnel should contact their local government or the Alaska Department of Environmental

Conservation at 465-5220 to learn more about this community-oriented program.

536.2 Training

The current hazmat training efforts of many EMS systems focus on the **awareness level**. Some services, however, recognize that their EMS personnel may be placed in the role of an incident commander during the initial phases of the event and have opted to provide more advanced training. The State EMS Office recommends that:

1. All EMS providers who work for an organized emergency medical service agency be trained to the Hazardous Materials First Responder Awareness level;
2. EMS agencies should be required to develop written hazardous materials policies which clearly define the intended hazardous materials response capabilities of the organization, based on perceived risks, and those risks identified through SARA Title III, community right-to-know, and transportation of hazardous materials activities;
3. EMS agencies should be required to provide hazardous materials training to allow them to meet their proposed hazmat capabilities in accordance with applicable Occupational Safety and Health requirements; and
4. A module containing the essential information in *National Fire Protection Association 473* be presented to EMS providers working for organized emergency medical services agencies who will be called upon to respond to hazardous materials incidents.

536.3 Resources

The *Specialty Services* section of the *Alaska Emergency Medical Services Directory* contains a *Hazardous Materials* sub-section. Information sources on **Chemicals Identification, Emergency Response, and Hospitals with Improvised Decontamination Facilities** are listed. Here. Hazmat publications listed in **Section 724** are also available from the State EMS Office.

Alaska currently does not have all the resources to be adequately prepared for a hazmat response. The State EMS Office recommends that local and state government, and concerned citizen

groups, support the acquisition of the following hazmat equipment:

1. Basic decontamination equipment for all first responder and ambulance services (see **Section 730**);
2. Basic decontamination equipment in all acute care hospitals (see **Section 735**);
3. Materials to protect all aircraft, ambulances, and other vehicles used for EMS-related transport from contamination (see **Section 730**);
4. Special decontamination equipment for first responder and ambulance services responding in areas with sub-zero temperatures; and
5. A listing of medical resources, including hospital emergency departments and poison centers, which can provide consultation and treatment for patients who are exposed to extremely hazardous chemicals.

540 Seasonal Impacts

541 Population-Related Impacts

Many Alaskan communities experience extreme seasonal fluctuations due to the influx of tourists and/or seasonal workers. This can make planning for emergency medical services difficult. In such circumstances, a community should estimate its equipment needs by identifying the level of community (such as Level II Isolated) associated with its peak population. In the event that a direct equivalent cannot be found, the next highest level community designation should be considered for planning purposes.

Personnel needs also should be estimated based on equivalent community designations. For example, a community whose population increases from 2,000 to 6,000 during fishing season should consider increasing its prehospital EMS personnel from Level II to Level III recommendations during the peak season.

See **Section 800** – Community Index for a listing of population-related seasonal impacts for specific communities.

542 Climate-Related Impacts

Alaska's climate, known for its extremes and severity, impacts the delivery of emergency medical services.

542.1 Alaska's Climate

Climate varies sharply across the state. High-pressure systems over Interior Alaska combat year round with the low-pressure systems spawned by the Bering Sea and the North Pacific. These elements sometimes produce rapid weather changes and hurricane-force winds that are further intensified by mountainous terrain.

Local weather tends towards extremes. Northern and Interior Alaska's desert-like, arctic-continental climate offers temperatures from minus 70 degrees F in winter to over 90 degrees F in summer. In northernmost Alaska, the sun does not rise above the horizon for over two months in the winter and does not set for nearly three months during the summer. Southcentral Alaska enjoys a more moderate transition climate with temperatures ranging from minus 40 –degrees F to over 80 degrees F. The southern panhandle's maritime climate delivers in excess of 200 inches of precipitation annually in some locales. The Aleutian Islands consist of an almost endless chain of gale, rain, and fog-swept volcanoes.

542.2 Climatic Impacts

Climate impacts the EMS system in a number of ways. Weather creates conditions that increase the likelihood of a person requiring emergency medical services. For instance, an arctic hunter on a winter trip may get caught in a sudden storm. Even with appropriate survival gear, there is a risk for hypothermia and frostbite given the potential for extreme cold and wind conditions.

Weather also slows down EMS response and transport times. Inclement weather, such as fog, high winds, driving rain, and heavy snow, results in frequent airplane groundings and overheadings at many of the state's airports. This is a problem since scheduled, charter, and private aircraft on wheels, floats, and skis form the principle mode of transportation statewide. Major highways are sometimes blocked by avalanches, preventing passage of vehicles including ambulances. Therefore, EMS

providers in rural areas and small towns in Alaska have to be prepared to take care of an injured or ill patient for much longer periods of time than EMS providers in most other parts of the country.

550 QA & CQI

This section highlights quality assurance and continuous quality improvement principles and discusses their applications for Alaska's EMS program.

551 Background

Evaluation, or examining *how well the system is doing*, provides feedback and enables us *to make changes so the system works better* in the future.

Evaluation of the quality of care in an EMS system became a requirement for regions receiving grants under *US Public Law 93-154* (see **Section 210**). Evaluation is a key component of the EMS planning process (see **Section 431**).

Evaluating the quality of medical care is difficult due to the variations in patients, medical care, circumstances, and outcomes. There are currently two common approaches to evaluating quality of care, **quality assurance (QA)** and **continuous quality improvement (CQI)**. These approaches are different in basic principles, but are both useful evaluating tools. In fact, a successful QA program is the basis for a CQI effort.

Evaluating medical care in an EMS system is difficult because of the system's structure. The EMS system involves relationships between many organization, facilities, and individuals with a variety of requirements and standards. There is no one person with the authority to act upon all the identified weaknesses. The system's diversity and local nature makes the establishment of common guidelines an enormous task.

Medical care also can be viewed as a production system with three components.

1. **Input:** knowledge, materials, equipment, methods, or anything needed by the

conversion process to turn out the desired product—or service

2. **Conversion:** acts necessary to change the raw material to the finished product
3. **Output:** the finished product or service

This simple model helps understand how quality assurance and continuous quality improvement change quality. QA focuses on inputs and output, while CQI focuses on process.

552 Quality Assurance

Traditionally, medical care has been evaluated using three categories of indicators: structure, process, and outcome. Indicators reflect critical points or issues in providing care. They are called indicators as they reflect good or bad outcomes. Structural indicators evaluate whether or not the physical capacity exists to provide care. Process indicators evaluate the way care is provided. Outcome indicators evaluate the end result.

553 Continuous Quality Improvement

Continuous quality improvement is a cyclic, problem-solving process, concerned with reducing **variation**. In reference to the bell-shaped curve, reducing variation brings the ends of the curve closer to the mid-point or standard. Once variation is reduced, the standard is moved to the right, or improved, and the process starts all over again. The basis of this approach is a statistical process control system.

Reducing variation results in stable, predictable performance and output uniformity. There are two approaches for reducing variation: standardization and process control. **Standardization** gets everyone to use the same procedures, materials, equipment, and so on. **Process control studies** process as it currently operates, looks for potential sources of variation, identifies causes for variation, and makes incremental changes to test the effect on the variation.

554 Applications

In Alaskan communities evaluating the quality of emergency medical care is done in two ways.

The first method, **case audit**, involves direct interaction of providers. In all community levels

(Level I, II, III, and IV communities) the EMS system has interactions between the EMS provider (EMT, CHA, MICP, PA, or NP) and the physician medical director. Quality assurance is a function of the collaborative agreement between the prehospital providers and their physician medical director. The interaction can be in person or via radio or telephone. Regular run reviews, done to determine whether care and transfer were performed appropriately and in accordance with local, regional, and state guidelines, is another form of the case audit.

The second method, **quality assurance studies**, is a formal process carried on in hospitals and other health-care organizations. Staff in a quality assurance program conduct QA activities that are often mandated by statute or third-party payer requirements. The second method occurs in Level III, IV, and V communities. Databases, such as the Alaska Trauma Registry and the Ambulance Survey, are useful tools for these studies.

In Level III, IV, and V communities, the health care system consists of individual providers and groups or organizations providing health care in two settings: the community (prehospital and post-hospital) and the hospital. Quality of care evaluation is usually done with quality assurance, although continuous quality improvement is appropriate as well.

In fact, CQI can be done at any community level. Again, databases, such as the Alaska Trauma Registry and the Ambulance Survey (see **Sections 230** and **590**), are useful tools for these processes. Data gathered through the Trauma Registry provides hospital and prehospital services with valuable information about the quality and appropriateness of treatment as well as training, personnel, equipment, and budgetary needs. For instance, the Trauma Registry provides diagnosis information in the *Prehospital Quality Assessment Summary* as shown in **Figure 550-1** to ambulance services on trauma patients that they transported.

In reference to quality assurance studies, the *Prehospital Quality Assurance Summary* flags cases that fail to meet certain pre-set standards, such as:

1. Patient treated at scene more than 20 minutes.

2. Patient transported from scene more than 20 minutes.
3. Total prehospital time more than 1 hour.
4. Hospital trauma score less than prehospital trauma score.
5. IV, O₂, or neck support applied in the emergency department but not during prehospital care.

Figure 550-1

Hypothetical Case Audit Example,
Prehospital Quality Assessment Summary

Run#: 0000000898

Injury description: Passenger of MV struck on passenger side by another car at high rate of speed.

Prehospital care provider level: Paramedic

Vital Signs: RR 016, SBP 118, GCS 012

Procedures: Application of neck support, IV

Transfer to: Not transferred

Discharge diagnosis #1: Injury, Spleen, C, Capsule Tear

Outcome: Discharged home

Clinical indicators: hospital trauma score less than prehospital trauma score; oxygen started in the emergency dept. but not during prehospital care.

These indicators only flag cases for further review. They do not necessarily indicate that prehospital response and treatment were inappropriate. For example, patient treated at scene more than 20 minutes may result from a difficult extrication.

Responsibilities for the safety and protection of the citizens of Alaska rests with federal, state, and local government, as well as individuals. The state mandates quality assurance activities through laws and regulations, and maintains conduct and control through licensing providers, equipment, and organizations. *Alaska Statute 18.08* assigns the Department of Health and Social Services (State EMS Office) the responsibility for the administration of programs designed to ensure the quality of prehospital care and gives the Governor's Alaska Council on Emergency Medical Services an oversight role. The federal government also is involved in quality of care, both indirectly and directly. Various federal agencies set standards for training, communications, hospitals and health agencies, occupational safety and health, and more.

560 Injury Prevention & Control

561 Injuries in Alaska

In Alaska, injuries are the number one cause of death for all ages except birth to age one and those over age 44. Unintentional injuries account for more deaths than cancer or heart disease and generally affect a young population – resulting in a substantial loss of years of potential life. From 1980 to 1989, 6,433 persons in Alaska died from injuries and tens of thousands more were hospitalized. From 1980 to 1989, unintentional and intentional injury deaths made up 29.3 percent of all deaths. The most recent five years however show that injury deaths are decreasing from the previous ten-year average of 710 deaths per year to 497 in 1991. Examples of unintentional injuries include motor vehicle crashes, drowning and other water-related injuries, aircraft crashes, and occupational injuries. Intentional injuries include suicide, homicide, and other acts of violence.

562 Injury: A Public Health Problem

Injury causes significant mortality and morbidity, as well as pain and suffering, and also causes major direct and indirect costs. For the 57 million persons in the United States injured in 1985, an estimated \$157.6 billion (\$2,772 per injured person) was spent. Direct expenditures for hospital and nursing home care, physician services, drugs, and other medical and rehabilitation services totaled about \$44.8 billion (\$790 per injured person). Premature death due to injury is extremely costly, accounting for an estimated average annual loss of 34 years of potential life per death.

Public health programs can significantly reduce the injury problem in the same way they tackle disease, by studying the causes and then using education, environmental changes and laws to reduce the incidence. The first step in developing a comprehensive injury prevention and control program is to collect and analyze information about injury problems in the target population. Prevention programs need to know where, when, and how injuries occur and to whom. In this way, patterns of injury events can be identified. Groups at risk for specific injuries then can be detected and appropriate prevention

strategies implemented and evaluated. Indeed, research shows that most injuries are predictable and preventable.

563 Injury Prevention & Control Program

The seriousness of the injury problem led the State EMS Office to initiate injury prevention activities in 1982 and to seek assistance from other resources including the assistance of other agencies. In October 1989 the Sections of Epidemiology and Emergency Medical Services in the Division of Public Health, Department of Health and Social Services, received a grant from the Centers for Disease Control (CDC), Division of Injury Control to establish an Injury Prevention and Control Program in Alaska.

The main purpose of the grant was to reduce the number and magnitude of injuries in Alaska and to maintain a permanent Injury Prevention and Control Program within the Division of Public Health. The program's main goals included:

- Building public awareness about the cost and impact of injuries;
- Providing prevention education to health professionals and the general public;
- Identifying injury problems;
- Developing injury prevention plans;
- Implementing injury prevention activities;
- Networking with other injury professionals;
- Providing technical assistance to injury prevention projects; and
- Maintaining an injury prevention materials resource center.

The CDC grant enabled the State EMS Office to prepare *The Alaska Injury Prevention Plan*. This plan is both a planning and resource document for health professionals and the public. (Copies of the plan are available from the State EMS Office.) The plan contains information about:

- The major causes of injury mortality and morbidity in Alaska;
- Risk factors contributing to injury;
- Available injury prevention resources; and recommendations for additional injury prevention activities.

A comprehensive injury prevention and control program requires leadership development, identification and analysis of injury problems,

and development and implementation of a control –plan. *The Alaska Injury Prevention Plan* is one piece in a puzzle. It is designed to bring injury prevention programs throughout Alaska together in a collaborative effort by providing an initiate for state injury prevention staff to implement activities with other agencies and to offer a beacon that other agencies can follow. (Annual *EMS Reports to the Legislature*, available from the State EMS Office, detail specific accomplishments.)

564 Injury Prevention Resources

Numerous agencies offer injury prevention activities in Alaska. Most programs limit activities to a particular population, geographic area, or a few categories of injury. Alaskan organizations offering or supporting injury prevention are listed in the annual *Alaska EMS Directory* (available from the State EMS Office).

570 EMS for Children

Children have different needs than adults. Since EMS systems were originally conceived and implemented by medical specialists with an orientation toward the adult patient, they did not adequately address the special needs of the pediatric patient. For instance, some aspects of the EMS system have been shown to reduce morbidity and mortality for adults but not for children. As EMS systems developed, it became clear to some pediatricians and others that the unique needs of children required special consideration.

571 Federal Initiative

Until recently, not enough was known about emergency care of infants, children, and adolescents. The Emergency Medical Services for Children (EMSC) Program grants, which were first awarded in 1985, have increased knowledge and provided materials for educational programs and system development. These materials can be used by EMS systems throughout the country. Attention has been directed toward the needs of critically ill or injured infants and children, with an emphasis on injury prevention as well.

EMSC programs can help ensure that if a child has serious or life-threatening injury or illness anywhere in the United States:

- The child will receive state-of-the-art emergency medical care;
- The pediatric service will be integrated into an EMS system with optimum resources; and
- The EMSC component of the EMS system will provide a spectrum of services and training, from primary prevention of illness and injury to problem identification, acute care, and rehabilitation.

572 Alaska Activities

In 1989 the Section of Emergency Medical Services received a federal EMSC grant, a three-year grant from the Maternal and Child Health Bureau of the US Department of Health and Human Services.

The goal of the Alaska EMSC Project is to improve the EMS system in Alaska and its ability to treat rehabilitate Alaska's acutely ill and injured children, as well as to prevent child injuries and deaths. The project addresses injuries affecting children and problems associated with pediatric emergencies through interventions at various stages in the disease process. It addresses the EMS system at all levels – prehospital, hospital, and rehabilitative services.

The 1989 federal grant enabled the State EMS Office to initiate many programs. A Pediatric Emergency Care course as well as various individual modules from the course were provided to over 1,000 EMS and health care personnel in rural communities and cities throughout the state. Most of the training was provided by 74 instructors who completed a Pediatric Emergency Care Instructor course. Many of these instructors resided in rural communities and provide instruction in their communities and surrounding areas at much less cost and with much more applicability to local circumstance than if the instructions were provided from a single location.

Two preceptorship programs were developed also. The first, for registered nurses, nurse practitioners, and physician assistants, enabled participants to work in a large hospital for five

days or more. Many of these health practitioners were from rural areas of the state. The program increased experiences with pediatric injuries and illnesses and, correspondingly, skills in treating those injuries and illnesses. It also included a large number of self-study modules as well as several evaluation components.

The other preceptorship program was designed for EMTs of all levels as well as for paramedics. This program involved 20 to 24 hours of assessment and "hands on" experience and care of pediatric patients. It also included self-study modules, designed for the various levels and capabilities of preceptors, and several evaluation components.

Seven different injury prevention projects were support as part of the program. Two of the projects were limited to the anchorage metropolitan area. Another one focused on the North Slope Borough, but included the development of materials that could be used statewide. The other efforts had statewide application. The projects addressed drowning prevention, EMS access, firearm safety, injury prevention for foster families, and bicycle helmet, snowmobile helmet, smoke alarm, and seat belt usage. In addition, two traveling robot ambulance projects focused on local injury problems and needs.

Because of Alaska's vastness and number of rural, isolated villages, many pediatric emergency patients spend considerable time in rural clinic waiting to be transported to higher level facilities and en route to hospitals, most often by air transport. To deal with such circumstances, the Alaska Medevac Manual was supported by the project and is designed to be used by all Alaska EMS air transport services.

Other project activities included:

1. A survey of pediatric capabilities of ambulance and first responder services, rural community health aide clinics, and hospitals in the state;
2. Assistance with the development of the Alaska Trauma Registry;
3. A compilation of 1990 data on medical and trauma admissions of children to hospitals; and
4. Development and implementation of a hospital discharge planning program, including a discharge planning manual and a

parent resource guide, which will be used by parents of special needs children to assist them in locating, evaluating, and securing health care resources for their children.

Although the federal grant had a three-year life, the focus was to institutionalize pediatric training, equipment, and other components of a pediatric EMS system into the statewide EMS system. Over time, the State EMS Office will know if this strategy has been successful. The statewide Trauma Registry, supported in part by the Alaska EMSC Project, will enable the EMS program to continue monitoring the numbers, severity, and outcomes of traumatic injuries to children. It will also make it possible to evaluate injury prevention efforts to see if they actually work.

A second EMSC grant for two years was awarded in 1994. Because the first grant enabled Alaska to prepare the basic structure and training for pediatric emergency medical services, this grant project focuses on the next logical step: prevention of certain injuries by age and injury type. The Alaska Trauma Registry, which tracks every hospitalized injury in Alaska, was used to help communities understand their injury patterns and to develop and implement plans to reduce those injuries. First year projects were approved for:

1. **Southern Region EMS Council:** to develop a training module for the subregions to allow credit for EMS persons taking the EMS Injury Prevention course modeled after the New Hampshire program PACE: Planning to Avoid childhood Emergencies. This program can be available to other agencies for training.
2. **Safe Kids Anchorage:** to purchase helmets to be sold at cost to teenagers in Northwest Alaska in collaboration with Maniilaq Association.
3. A project collaboration between **Alaska Area Native Health Administration, the Alaska Division of Fire Protection, and Emergency Medical Services:** to distribute 5,000 smoke detectors in rural Alaskan villages.
4. **Interior Region EMS:** to focus on falls by developing modules for Little Lance the Ambulance and by conducting playground surveys.

5. **Kodiak KANA:** to complete their marine survival skills program by flying students to Kodiak from two outlying communities.
6. **Alaska Public Information Resources Group:** to compile a report on Alaska playgrounds, develop handbooks for parents and teachers, and conduct training on playground monitoring.

580 Trauma Care System

581 Traumatic Injury & Public Health

Trauma refers to bodily injury and encompasses a wide range of severity. Trauma is a public health problem in Alaska. Traumatic injury, both intentional and unintentional, is the leading cause of death in the first five decades of life in our state, and many Alaskans also sustain long-term disability as a result of injury.

582 Federal Planning Initiative

To enhance trauma system development, the United States Congress passed the Trauma Care System Planning and Development Act of 1990. This legislation emphasized the recognition of injury as a public health problem and required the development of *the Model Trauma Care System Plan* for states to use as a reference guide in the development of a comprehensive trauma care system plan.

The structure of a trauma care system involves a number of **components** and **providers**, each of which must be adapted to a specific environment, whether it be urban or rural. The components and providers have been well established by recognized guidelines. The **American College of Surgeons Committee on Trauma (ACSCOT)** and the **American College of Emergency Physicians (ACEP)** have criteria establishing the minimum requirements for trauma centers and trauma systems. The **National Highway Traffic Safety Administration** has produced a community guide for trauma system development and has provided technical assistance teams to help state emergency medical services agencies with trauma system development.

Funds were appropriated to implement the programs authorized by this Act for three years,

federal fiscal year (FFY) 1992 through 1994. The **State Program for Grants with Respect to Modification of Trauma Care Plans** provided funds for developing, implementing, and monitoring the modifications to the trauma care components of state EMS plans. The grants for the State Program, which were funded under a competitive process, were administered by the **Division of Trauma and Emergency Medical Systems**, Bureau of Health Resources Development, Health Resources and Services Administration, US Department of Health and Human Services.

583 An Inclusive Trauma Care System

An inclusive trauma care system requires a comprehensive plan that encompasses all aspects of trauma care for both major and minor injuries, as well as a plan for prevention, training and system evaluation. All well functioning inclusive trauma plans should be supported by appropriate financing, legislation, and leadership. The crux of understanding an inclusive trauma plan is to realize that 90 percent of all trauma victims do not require care at a Level I or Level II Trauma Center. The goal of an inclusive system is to match the injured victim's medical needs with the medical resources available. Victims with minor injuries can receive definitive care at clinics and non-surgical facilities.

The *Model Trauma Care System Plan* encourages the formation of an inclusive trauma system. Fourteen components, which can be clustered into three groups, are essential for this inclusive system.

The first group consists of the central core of operation components that provide direct patient care once an injury occurs. The response requires the use of coordinated **communication** mechanisms, accurate identification of the level of care needed by the injured patient (**triage** and **medical direction**), rapid **transport** and **transfer** to an appropriate **facility**, and the integration of support services, such as **rehabilitation**, to return the patient to a productive life in the community.

The second group consists of **injury prevention** to target the public and reduce the number of patients ultimately needing trauma care; **training** of providers to ensure optimal patient care; and

evaluation to monitor, maintain, and improve the system.

Finally, the third group contains the administrative components of the trauma care system. These include **leadership** planning and **system development, legislation, and finance**. These components promote ongoing system development and enhancement.

584 Alaska Planning Initiative

The State EMS Office applied for and received funding for a State Program grant in FFY 1993, 1994, and 1995. Oversight for these grants were provided by the Alaska Trauma Care System Planning and Development Task Force, which was chaired by Dr. Steve Kilkenny. During this three-year project, several goals and objectives were accomplished.

- The statewide Trauma Registry was expanded and improved and a study of serious injuries in Alaska was completed.
- The comprehensive *Alaska Trauma Care System Plan* was developed and integrated with the state EMS plan, *Alaska EMS Goals*.
- Forty Basic Trauma Life Support and nine Advanced Trauma Life Support Instructors were trained.
- Regulations were developed for certifying trauma centers according to American College of Surgeons Committee on Trauma criteria.
- Seven of Alaska's largest hospitals underwent trauma care consultation reviews from a team of surgeons from the American College of Surgeons Committee on Trauma.
- Trauma Care Quality Improvement reports were developed and refined for Alaskan hospitals, three hospitals hired full-time trauma nurse coordinators, and two other hospitals announced plans to hire part-time coordinators.
- Trauma Triage and Transport Guidelines, and a Rehabilitation Guide were developed.
- A television public service announcement was developed.

With the completion of this project, Alaska made significant progress toward developing a comprehensive, statewide, inclusive trauma care system. It is anticipated that a few of the state's largest hospitals will apply for trauma center

certification in 1996. The result of this project should be expedited and improved trauma care for seriously injured people in Alaska, which should result in fewer deaths and long-term disabilities from traumatic injuries.

590 Alaska Trauma Registry

591 Purpose

The Alaska Trauma Registry is an information system of the most seriously injured patients and the treatment that they have received. The purpose of the Registry is to evaluate the quality of trauma patient care and the effectiveness of the trauma care system, and to plan and evaluate injury prevention programs. Since January of 1991 the Trauma Registry has collected data from all twenty-four of Alaska's acute care hospitals.

Data gathered through the Trauma Registry provides hospitals and prehospital services with valuable information about the quality and appropriateness of treatment as well as training, personnel, equipment, and budgetary needs. The Trauma Registry information also serves the Emergency Medical Services Section and other agencies when planning and evaluating injury prevention programs, public education, EMS training, and legislative action.

592 Inclusion Criteria

The criteria for inclusion in the Registry are patients with injuries described by ICD-9 CM diagnosis codes 800.00-995.89 for injury and poisoning, including the effects of reduced temperature and drowning/near drowning, that are admitted to the hospital, transferred to a higher level of care, or declared dead in the emergency department. Data is abstracted from hospital records after patient discharge. Each record has up to 144 data elements which include information on patient demographics, circumstances of injury, prehospital and in-hospital response times and treatment, severity of injury, diagnosis, length of hospital stay, cost of hospitalization, and discharge condition.

593 Data Confidentiality

The confidentiality of Trauma Registry data is protected under AS 18.23.010-070. Under state statute, data acquired by a review organization, in the exercise of its duties or functions, is not subject to subpoena or discovery. The Trauma Registry Review Committee, comprised of at least 75 percent health care providers, serves as this organization and meets quarterly to guide Trauma Registry development and review data. All Trauma Registry personnel sign a confidentiality statement. There are no patient identifiers. Physicians, hospitals, clinics, and ambulance services are coded during data entry. Information is released to requesting agencies in aggregate form.

594 Trauma Registry Reports

Reports are sent monthly or quarterly to hospital officials. They include:

1. A patient log,
2. A trauma service summary,
3. A quality assurance summary,
4. A survival probability summary, and
5. A complications summary.

A Prehospital Report for Ambulance Services has been developed as well which includes:

- An activity report summary,
- A clinical indicator summary,
- A documentation compliance report, and
- A quality improvement summary

SECTION 600 COMMUNITY RECOMMENDATIONS

OVERVIEW

This plan recommends guidelines for a system based on the framework outlined in **Section 400**.

The framework uses eight community classifications. These include:

- ◆ **Section 610 – Level I Highway Villages**
- ◆ **Section 620 – Level I Highway Villages**
- ◆ **Section 630 – Level II Isolated Sub-Regional Centers**
- ◆ **Section 640 – Level II Highway Sub-Regional Centers**
- ◆ **Section 650 – Level III Regional Centers**
- ◆ **Section 660 – Level IV Small Cities**
- ◆ **Section 670 – Level V Urban Centers**
- ◆ **Section 680 – Others**

Population figures used for community classification are from 1995 population estimates from the State Demographer, Research and Analysis Section, Alaska Department of Labor.

SECTION 610
LEVEL I
ISOLATED VILLAGES

OVERVIEW

This section contains the specific EMS recommendations for **Level I Isolated Villages**. (See **Section 410** for the definition of a Level I Isolated Village.) The recommendations are organized in a fourteen-component framework described in **Section 430**.

The section is divided into two subsections. Communities classified as **Level I Isolated Villages** are listed in **Section 611**. The recommendations are shown in **Section 612**. Refer to **Section 440 – Prehospital/Hospital/Post-Hospital Index** to determine how these recommendations relate to hospital care.

Level I Isolated Villages provide basic life support emergency medical services to all people at all times within the village as well as patient discharge or transport to a higher level of care according to state standards.

611 Community Listings

INTERIOR REGION

Alcan
 Allakaket
 Anderson
 Arctic Village
 Beaver
 Bettles
 Cantwell
 Central
 Chalkyitsik
 Chicken
 Circle
 Circle Hot Springs
 Coldfoot
 Denali Park
 Dot Lake
 Dry Creek
 Eagle
 Eagle Village
 Eureka
 Evansville
 Ferry
 Harding Lake
 Healy Lake
 Hughes
 Huslia
 Kaltag
 Koyukuk
 Lake Minchumina
 Lignite
 Livengood
 Manley Hot Springs
 McKinley Park
 Minto
 Nikolai
 Northway
 Northway Junction
 Northway Village
 Nulato
 Port Alcan
 Rampart
 Ruby
 Stevens Village
 Takotna
 Tetlin
 Venetie
 Wiseman

NORTH SLOPE REGION

Anaktuvuk Pass
 Atquasuk
 Kaktovik
 Nuiqsut
 Point Hope
 Point Lay
 Wainwright

NORTHWEST ARCTIC BOROUGH

Ambler
 Buckland
 Deering
 Kiana
 Kivalina
 Kobuk
 Noatak
 Noorvik
 Selawik
 Shungnak

NORTON SOUND REGION

Brevig Mission
 Diomede
 Elim
 Gambell
 Golovin
 Koyuk
 Port Clarence
 Saint Michael
 Savoonga
 Shaktoolik
 Shishmaref
 Stebbins
 Teller
 Wales
 White Mountain

SOUTHEAST REGION

Angoon
 Coffman Cove
 Covenant Life
 Edna Bay
 Elfin Cove
 Excursion Inlet
 Game Creek
 Hollis
 Hydaburg
 Hyder
 Kake

Kassan
 Klukwan
 Kupreanof
 Meyers Chuck
 Mosquito Lake
 Naukati Bay
 Point Baker
 Port Alexander
 Port Protection
 Rowan Bay
 Tenakee Springs
 Thom's Place
 Whale Pass

SOUTHERN REGION

Aleutian/Pribilof Sub-Area

Atka
 Cold Bay
 False Pass
 Nelson Lagoon
 Nikolski

Bristol Bay Sub-Area

Chignik Lagoon
 Chignik Lake
 Clark's Point
 Egegik
 Ekwok
 Goodnews Bay
 Igiugig
 Iliamna
 Ivanof Bay
 King Salmon
 Kokhanok
 Koliganek
 Levelock
 Manokotak
 Newhalen
 New Stuyahok
 Nondalton
 Pedro Bay
 Perryville
 Pilot Point
 Platinum
 Port Alsworth
 Port Heiden
 South Naknek
 Twin Hills

Copper River Sub-Area

Chistochina
 Chitina
 Copper Center
 Copperville
 Eureka
 Gakona
 Gulkana
 Kenny Lake
 Lower Tonsina
 Mendaltna
 Nabesna
 Nelchina
 Paxson
 Slana
 Sourdough
 Tazlina
 Tolsona
 Tonsina

Kenai Peninsula Borough Sub-Area

Halibut Cove
 Jakolof Bay
 Tyonek

Kodiak Island Borough Sub-Area

Akhiok
 Chiniak
 Larsen Bay
 Old Harbor
 Ouzinkie
 Port Lions

Mat-Su Borough Sub-Area

Alexander
 Chase
 Lake Creek
 Skwentna

Prince William Sound Sub-Area

Chenega
 Falls Bay
 Nanwalek
 Port Graham
 Tatitlek

YUKON-KUSKOKWIM REGION

Akiachak

Akiak
 Alakanuk
 Anvik
 Atmautluak
 Cheforak
 Chevak
 Chuathbaluk
 Crooked Creek
 Eek
 Emmonak
 Grayling
 Holy Cross
 Hooper Bay
 Kalskag
 Kasigluk
 Kipnuk
 Kongiganak
 Kotlik
 Kwethluk
 Kwigillingok
 Lime Village
 Lower Kalskag
 Marshall
 Mekoryuk
 Mountain Village
 Napakiak
 Napaskiak
 Newtok
 Nightmute
 Nunapitchuk
 Oscarville
 Pilot Station
 Pitkas Point
 Quinhagak
 Red Devil
 Russian Mission
 Saint Mary's Scammon Bay
 Shageluk
 Sheldon Point
 Sleetmute
 Stony River
 Toksook Bay
 Tuluksak
 Tuntutuliak
 Tununak

612 RECOMMENDATION

1 PERSONNEL

A ADMINISTRATION

Every **Level I Isolated Village** should have:

1. A designated person to coordinate EMS activities.
2. Documented periodic meetings of local EMS providers, such as Community Health Aides (CHAs), Community Health Practitioners (CHPs), Village Public Safety Officers (VPSOs), Search and Rescue (SAR) personnel, Emergency Trauma Technicians (ETTs), or Emergency Medical Technicians (EMTs), to review responsibilities and coordinate activities.
3. Quarterly contact with regional or sub-area EMS coordinator.
4. Input into a regional/sub-area EMS plan.
5. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as indicated.

B PROVIDERS

1 Prehospital Emergency Providers

Every **Level I Isolated Village** should have:

1. Available at all times, a designated emergency care provider (usually the primary or alternate community health aide):
 - Trained to at least the EMT-I level, but preferably to the EMT-II level, with DHSS-approved air medical training.
 - Trained in medical communications as appropriate for local resources.
 - With access to medical consultation from higher level community at all times.
2. At least two people in every high risk site, such as schools and remote occupational areas, trained to the Emergency Trauma Technician level or above.
3. Those communities with extensive roadways should have an organized first responder service with personnel trained to at least the Emergency Trauma Technician level, but preferably the EMT-I level.

II Air Medical Services

Every **Level I Isolated Village** should have:

1. Availability of, or access to, a state certified medevac service.
2. On every medevac utilizing local personnel, an attendant with a minimum of EMT-I skill level, with DHSS-approved air medical escort training.
3. On every medevac involving advanced life support, an attendant at the EMT-II skill level or above with DHSS-approved air medical escort training.
4. On every medevac with a patient requiring advanced cardiac life support, an attendant at the EMT-III level or above with DHSS-approved air medical escort training.

III Clinic Providers

Every **Level I Isolated Village** should have:

1. CHAs and CHPs trained to at least the EMT-I level with additional training in DHSS-approved air medical care, pediatric emergencies, oxygen therapy, and IV fluid skills.

IV Injury Prevention

Every **Level I Isolated Village** should have:

1. A person designated to coordinate injury prevention activities in the community.

V Public Safety

Every **Level I Isolated Village** should have:

1. All search and rescue personnel trained to at least the Emergency Trauma Technician level.
2. All law enforcement officers and firefighters trained to at least the Emergency Trauma Technician level.

2 TRAINING

A STANDARDS

Every **Level I Isolated Village** should have:

1. Basic and advanced training programs for all levels of prehospital and clinic care providers including pediatric and trauma care.
2. All emergency medical services personnel trained to applicable local, state, and national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.
3. For all emergency responders in the community, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.

B PREHOSPITAL TRAINING PERSONNEL

Every **Level I Isolated Village** should have:

1. At least one First Aid and CPR Instructor.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Level I Isolated Village** should have:

1. A means for first responders or ambulance service personnel to contact the designated emergency care receiving facility.
2. A means for two-way communications among first responders or ambulance service personnel.
3. A means for two-way communications between first responders on the highway and the ambulance service covering their area if applicable.
4. A means for two-way communications among search and rescue personnel.
5. A means to dispatch first responders or ambulance service personnel at all times.
6. A current inventory of communications equipment.
7. A plan that incorporates current and local communications equipment with the regional plan.
8. New equipment procurements coordinated with the regional office.
9. Emergency care providers trained in relay of medical communications, as appropriate to their local resources.
10. Posted communications procedures.

B STATE SYSTEM

Every **Level I Isolated Village** should:

1. Have personnel who are familiar with the state EMS communications plan and how to obtain copies and/or additional information.
2. Ensure that proposed communications resources are compatible with existing and anticipated local, regional, and state communications plans and systems.

C BACK-UP & RELIABILITY

Every **Level I Isolated Village** should have:

1. A weekly test of the EMS communications system and a log which records the communications system's reliability.
2. Predetermined procedures for maintaining EMS communications equipment.
3. A backup system for direct two-way communications between designated emergency care providers and the hospital to which they refer patients.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

Every **Level I Isolated Village** should have:

1. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency medical services and facilities.

B RESOURCES

I Ground Ambulances

Every **Level I Isolated Village** should:

1. Identify, in advance, a vehicle or other means available for patient transportation, and a person responsible for its maintenance. Ideally, it should have room for the –patient to lie down, and a means to keep the patient and the emergency care provider sheltered.
2. Have immediate access to ground transport equipment and with pediatric emergency care equipment and medications as

recommended in **Section 732-Ambulance Services**.

II Air Medical Services

Every **Level I Isolated Village** should have:

1. A maintained landing strip/area or float ramp for fixed-wing/rotary aircraft, with means to provide lighting for emergencies.
2. A designated person/agency responsible for ensuring landing area safety and storing runway lighting devices, if necessary.
3. Immediate access to an air transport kit including pediatric emergency care equipment and medications as recommended in **Section 733.1-Basic Equipment** and **Section 733.4-Pediatric Kits**.
4. Access, within a reasonable period of time, to a state-certified air medical service for transport and for transfer when appropriate. Alternate transport should be planned for when these resources are unavailable or weather hinders their use.

C PROTOCOLS

Every **Level I Isolated Village** should have:

1. A plan for transporting patients based on the degree of injury, available equipment and the level of personnel available to accompany a particular type of transport (see *Alaska Trauma Triage, Transport & Transfer Guidelines*).
2. Established procedures for emergency air transport of adult and pediatric patients as delineated in the Alaska Medevac Manual.
3. A system for retrieving equipment transported with the patient.
4. Posted procedures for patient transport.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

Every **Level I Isolated Village** should have:

1. A clinic or designated first aid station equipped to treat and stabilize emergency patients, with emergency care equipment and supplies, as recommended in **Section 734.1-Level I Community Clinics**.

B EQUIPMENT & SUPPLIES

Every **Level I Isolated Village** should have:

1. Trauma kits readily available for first responders, equipped as recommended in **Section 731.1-First Responder Trauma Kit**.
2. One extrication kit for first responders, equipped as recommended in **Section 731.2-First Responder Extrication Kit**.
3. Equipment and supplies appropriate for training level of EMS providers.
4. Equipment and supplies for emergency care for both pediatric and adult patients as recommended in **Section 734.1-First Responder Trauma Kit**.
5. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Level I Isolated Village** should have:

1. Coordination between public safety agencies with mutual aid agreements.

B ENVIRONMENTAL RESPONSE

Every **Level I Isolated Village** should have:

1. A community plan for hazardous materials response which covers the topics in *Managing Hazardous Materials Incidents, Volume I* (available from the State EMS Office).
2. Personnel trained in the recognition of, and immediate response to, hazardous materials emergencies.
3. A procedure for notifying appropriate agencies if a hazardous materials release occurs.
4. A procedure for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release, including teams trained in decontamination, treatment, and transport of seriously contaminated patients.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Level I Isolated Village** should have:

1. A plan for monitoring emergency care costs and for coordinating patient care billing with appropriate local or regional agencies.
2. A copy of *The EMS Billing Workbook* (available from the State EMS Office).

B EQUAL CARE OPPORTUNITY

Every **Level I Isolated Village** should:

1. Ensure that all patients in need of EMS are provided emergency care and transportation without regard to race, creed, color, sex, national origin, disability, or ability to pay.

C SERVICE AVAILABILITY

Every **Level I Isolated Village** should have:

1. Access, via telephone or radio, to trained and equipped emergency medical responders at all times.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Level I Isolated Village** should:

1. Maintain training, personnel, and medical records, including the EMS patient encounter form, as required by applicable state and federal laws.

B REGIONAL & STATE COORDINATION

Every **Level I Isolated Village** should:

1. Have a system for providing summary data to regional and state EMS agencies.
2. Use a state-approved patient care form for emergency medical services.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Level I Isolated Village** should have:

1. Public education activities to ensure that residents and visitors are familiar with the emergency care resources available to them, and how they may be accessed.
2. First Aid and CPR classes available to the community at least annually.

B EMERGENCY RESPONSE

Every **Level I Isolated Village** should have:

1. Emergency response information available to all school personnel, for the efficient handling of injuries and emergencies, including plans for the transport of critically injured or ill children to an appropriate facility.

C CONSUMER PARTICIPATION

Every **Level I Isolated Village** should:

1. Encourage consumer participation in EMS planning and policy development.
2. Identify consumers with special interest in EMS and encourage their participation in appropriate events.
3. Maintain a library of injury prevention and safety resources in the school and local clinic if one exists (see Component 14B).

10 EVALUATION

A LOCAL REVIEW

Every **Level I Isolated Village** should:

1. Periodically provide patient encounter forms for review by the subarea or regional office and the regional medical director
2. Periodically meet and review the community EMS status as compared with the applicable recommendations in *Alaska EMS Goals*.
3. Periodically coordinate with identified allied agencies to confirm or reestablish support and assistance in meeting recommended community goals.
4. For any state-certified ambulance service, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.

B REGIONAL REVIEW

Every **Level I Isolated Village** should:

1. Coordinate a community EMS review using the recommendations contained in Alaska EMS Goals every three years.

11 DISASTER RESPONSE

A COORDINATION

Every **Level I Isolated Village** should:

1. Maintain an integrated all-hazard disaster plan.
2. Be included in regional/sub-area disaster plans. The plan should identify the most likely disaster threats, address these threats with action plans, define the roles and responsibilities of key public health and safety officials in the event of a disaster, and explain how regional and state disaster response resources are accessed.

B TRANSPORTATION

Every **Level I Isolated Village** should have:

1. A plan for ensuring that ill or injured patients can be triaged, treated/stabilized, and evacuated from the community in a disaster.
2. A system for retrieving equipment used in transports.

C PERSONNEL

Every **Level I Isolated Village** should have:

1. A member of the community appointed by the community leaders as the Local Disaster Preparedness Coordinator.
2. Personnel with training in the Incident Command System, familiarity about the initial response to a disaster, and the ability to obtain additional personnel, equipment, supplies, and transportation resources.

D TRAINING

Every **Level I Isolated Village** should have:

1. The Disaster Preparedness Coordinator complete the following FEMA Home Study Courses: *HS-1 Emergency Program Manager, HS-2 Emergency Management, USA; HS-5 Hazardous Materials: A Citizen's Orientation.*
2. Periodic disaster exercises that include those individuals and agencies most likely to be involved in disaster response.

E FACILITIES & EQUIPMENT

Every **Level I Isolated Village** should:

1. Have sufficient equipment to initiate a rapid and safe response to potential disaster threats.
2. Have a plan for accessing additional equipment and supplies, through mutual aid agreements or direct requests to regional and state disaster agencies.
3. Have an established plan for EMS equipment resupply and return.
4. Evaluate and designate local buildings (schools, churches, community centers) as resources in the disaster plan for sheltering.
5. Identify potential triage, treatment, and transfer sites in disaster facilities.
6. Have pre-stocked disaster supplies available in case of mass casualty disasters, as recommended in **Section 737-Prehospital Disaster Supplies**.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTAINANCE

Every **Level I Isolated Village** should:

1. Establish and maintain written mutual aid agreements between local emergency response agencies and with adjacent and neighboring communities.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Level I Isolated Village** should have:

1. When possible, a physician identified for certified or non-certified services, who agrees to fulfill the responsibilities of a

- physician medical director as outlined in the EMS regulations.
2. The capability for medical direction by phone or radio.
 3. For non-certified services, assistance in obtaining medical direction from the regional EMS office.
 4. A system to get information back to the provider about the original patient.

B REGIONAL/STATE EMS SYSTEM MEDICAL DIRECTORS

Every **Level I Isolated Village** should:

1. Know how to contact the State/Regional EMS Medical Directors for additional information on medical direction.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Level I Isolated Village** should have:

1. An injury prevention plan that includes an assessment of community injury problems and objectives for public education and school health education.
 - The **community assessment** should identify the major causes of injury within the area, methods of preventing or limiting the risk of injuries, and prevention resources.
 - The **public education component** should provide activities to build public awareness about information on prevention, and details about accessing EMS resources.
 - The **school health education component** should provide prevention and survival education for all school age children.
 - Ordinances and policies in place that decrease the risk of injuries to community residents and visitors.

B TRAINING

Every **Level I Isolated Village** should have:

1. Local health, social services, education, and public safety personnel who are trained to provide injury prevention information as a part of routine duties. Information is available from the State EMS Office.
2. Injury prevention reading materials and videos available for self-study including the

books, *Alaska Injury Prevention Plan* (available from the State EMS Office); *Injury Prevention, Meeting the Challenge*, and *The Injury Prevention Fact Book* in an accessible location such as public libraries.

SECTION 620

LEVEL I

HIGHWAY VILLAGES

OVERVIEW

This section contains the specific EMS recommendations for **Level I Highway Villages**. (See **Section 410** for the definition of a Level I Highway Village.) The recommendations are organized in a fourteen-component framework described in **Section 420**.

The section is divided into two subsections. Communities classified as **Level I Highway Villages** are listed in **Section 621**. The recommendations are shown in **Section 622**. Refer to **Section 440-Prehospital/Hospital/Post-Hospital Index** if you need to know how these recommendations relate to the hospital.

Level I Highway Villages should provide basic life support emergency medical services to all patients when needed within the village as well as patient transport to a higher level of care according to state standards.

621 Community Listings

INTERIOR REGION

Chatanika
Ester
Fox
Moose Creek
Pleasant Valley
Salcha
Two Rivers

SOUTHEAST REGION

Saxman

SOUTHERN REGION

Bristol Bay Sub-Area

Aleknagik

Kenai Peninsula Borough

Clam Gulch
Cohoe
Cooper Landing
Crown Point
Fox River
Happy Valley
Hope
Kachemak
Kalifonsky
Kasilof
Moose Pass
Nikolaevsk
Ninilchik
Primrose
Salamatof

Kodiak Island Sub-Area

Women's Bay

Matanuska-Susitna Borough Sub-Area

Butte
Chickaloon
Houston
Knik
Lazy Mountain

Sutton
Trapper Creek
Willow

Prince William Sound Sub-Area

Eyak

622 Recommendations

I PERSONNEL

A ADMINISTRATION

Every **Level I Highway Village** should have:

1. A designated person to coordinate EMS activities.
2. Documented periodic meetings of local EMS providers, such as Community Health Aides (CHAs), Community Health Practitioners (CHPs), Village Public Safety Officers (VPSOs), Search and Rescue (SAR) personnel, Emergency Trauma Technicians (ETTs), or Emergency Medical Technicians (EMTs), to review responsibilities and coordinate activities.
3. Quarterly contact with regional or sub-area EMS coordinator.
4. Input into a regional/sub-area EMS plan.
5. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as indicated.
6. If applicable, a physician who assumes the responsibilities of a medical director outlined in the EMS regulations.

B PROVIDERS

I Prehospital Emergency Providers

Every **Level I Highway Village** should have:

1. An organized first responder or ambulance service with personnel:
 - At least three EMTs trained to the EMT-I level, but preferably EMT-II level, with DHSS-approved air medical training.
 - Trained in medical communications as appropriate for local resources.
 - With access to medical consultation from a higher level community at all times.

2. At least two people in every high risk site, such as schools and remote occupational areas, trained to the Emergency Trauma Technician level or above.

II Air Medical Services

Every **Level I Highway Village** should have:

1. Availability of, or access to, a state certified medevac service.
2. On every medevac utilizing local personnel, an attendant with a minimum of EMT-I skill level, with DHSS-approved air medical escort training.
3. On every medevac involving advanced life support, an attendant at the EMT-II skill level or above with DHSS-approved air medical escort training.
4. On every medevac with a patient requiring advanced cardiac life support, an attendant at the EMT-III level or above with DHSS-approved air medical escort training.

III Clinic Providers

Every **Level I Highway Village** should have:

1. CHAs and CHPs trained to at least the EMT-I level with additional training in DHSS-approved air medical care, pediatric emergencies, oxygen therapy, and IV fluid skills.

IV Injury Prevention

Every **Level I Highway Village** should have:

1. A person designated to coordinate injury prevention activities in the community.

V Public Safety

Every **Level I Highway Village** should have:

1. All search and rescue personnel trained to at least the Emergency Trauma Technician level.
2. All law enforcement officers and firefighters trained to at least the Emergency Trauma Technician level.

2 TRAINING

A STANDARDS

Every **Level I Highway Village** should have:

1. Basic and advanced training programs for all levels of prehospital and clinic care providers including pediatric and trauma care.
2. All emergency medical services personnel trained to applicable local, state, and national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.
3. For all emergency responders in the community, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.

B PREHOSPITAL TRAINING PERSONNEL

Every **Level I Highway Village** should have:

1. At least one First Aid and CPR Instructor.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Level I Highway Village** should have:

1. A means for village first responders or ambulance service personnel to contact the designated emergency care receiving facility.
2. A means for two-way communications among first responders or ambulance service personnel.
3. A means for two-way communications between highway first responders and the ambulance service covering their area.
4. A means for two-way communications among search and rescue personnel.
5. A means to dispatch first responders or ambulance service personnel at all times.
6. A current inventory of communications equipment.
7. A plan that incorporates current and local communications equipment with the regional plan.
8. New equipment procurements coordinated with the regional office.

9. Emergency care providers trained in relay of medical communications, as appropriate to their local resources.
10. Posted communications procedures.

B STATE SYSTEM

Every **Level I Highway Village** should:

1. Have personnel who are familiar with the state EMS communications plan and how to obtain copies and/or additional information.
2. Ensure that proposed communications resources are compatible with existing and anticipated local, regional, and state communications plans and systems.

C BACK-UP & RELIABILITY

Every **Level I Highway Village** should have:

1. A weekly test of the EMS communications system and a log which records the communications system's reliability.
2. Predetermined procedures for maintaining EMS communications equipment.
3. A backup system for direct two-way communications between designated emergency care providers and the hospital to which they refer patients.

**4 PATIENT
TRANSPORT/TRANSFER**

A STANDARDS

Every **Level I Highway Village** should have:

1. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency medical services and facilities.

B RESOURCES

I Ground Ambulances

Every **Level I Highway Village** should:

1. Identify, in advance, a vehicle or other means available for patient transportation, and a person responsible for its maintenance. Ideally, it should have room for the patient to lie down, and a means to

- keep the patient and the emergency care provider sheltered.
2. Have immediate access to ground transport equipment as recommended in **Section 732**, and with pediatric emergency care equipment and medications (see **Section 732.6**).

II Air Medical Services

Every **Level I Highway Village** should have:

1. Access, within a reasonable period of time, to a state-certified air medical service for transport and for interhospital transfer when appropriate.

C PROTOCOLS

Every **Level I Highway Village** should have:

1. A plan for transporting patients based on the degree of injury, available equipment and the level of personnel available to accompany a particular type of transport (see *Alaska Trauma Triage, Transport & Transfer Guidelines*).
2. Established procedures for emergency air transport of adult and pediatric patients as delineated in the *Alaska Medevac Manual*.
3. A system for retrieving equipment transported with the patient.
4. Posted procedures for patient transport.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

Every **Level I Highway Village** should have:

1. A clinic or designated first aid station equipped to treat and stabilize emergency patients, with emergency care equipment and supplies, as recommended in Section 734.1-Level I.

B EQUIPMENT & SUPPLIES

Every **Level I Highway Village** should have:

1. Trauma kits readily available for first responders, equipped as recommended in **Section 731.1**.
2. One extrication kit for first responders, equipped as recommended in **Section 731.2**.
3. Equipment and supplies appropriate for training level of EMS providers.
4. Equipment and supplies for emergency care for both pediatric and adult patients as recommended in **Section 734.1**.
5. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Level I Highway Village** should have:

1. Coordination between public safety agencies with mutual aid agreements.

B ENVIRONMENTAL RESPONSE

Every **Level I Highway Village** should have:

1. A community plan for hazardous materials response which covers the topics in *Managing Hazardous Materials Incidents, Volume I* (available from the State EMS Office).
2. Personnel trained in the recognition of, and immediate evacuation and protection of people, during a hazardous materials emergency.
3. A procedure for notifying appropriate agencies if a hazardous materials release occurs.
4. A procedure for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release, including teams trained in decontamination, treatment, and transport of seriously contaminated patients.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Level I Highway Village** should have:

1. A plan for monitoring emergency care costs and for coordinating patient care billings with appropriate local or regional agencies.

2. A copy of *The EMS Billing Workbook* (available from the State EMS Office).

B EQUAL CARE OPPORTUNITY

Every **Level I Highway Village** should:

1. Ensure that all patients in need of EMS are provided emergency care and transportation without regard to race, creed, color, sex, national origin, disability, or ability to pay.

C SERVICE AVAILABILITY

Every **Level I Highway Village** should have:

1. Access, via telephone or radio, to trained and equipped emergency medical responders at all times.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Level I Highway Village** should:

1. Maintain training, personnel, and medical records, including the EMS patient encounter form, as required by applicable state and federal laws.

B REGIONAL & STATE COORDINATION

Every **Level I Highway Village** should:

1. Have a system for providing summary data to regional and state EMS agencies.
2. Use a state-approved patient care form for emergency medical services.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Level I Highway Village** should have:

1. Public education activities to ensure that residents and visitors are familiar with the emergency care resources available to them, and how they may be accessed.
2. First Aid and CPR classes available to the community at least annually.

B EMERGENCY RESPONSE

Every **Level I Highway Village** should have:

1. Emergency response information available to all school personnel, for the efficient handling of injuries and emergencies, including plans for the transport of critically injured or ill children to an appropriate facility.

C CONSUMER PARTICIPATION

Every **Level I Highway Village** should:

1. Encourage consumer participation in EMS planning and policy development.
2. Identify consumers with special interest in EMS and encourage their participation in appropriate events.
3. Maintain a library of injury prevention and safety resources in a school (see **Component 14B**).

10 EVALUATION

A LOCAL REVIEW

Every **Level I Highway Village** should:

1. Periodically provide patient encounter forms for review by the subarea or regional office and the regional medical director
2. Periodically meet and review the community EMS status as compared with the applicable recommendations in Alaska EMS Goals.
3. Periodically coordinate with identified allied agencies to confirm or reestablish support and assistance in meeting recommended community goals.
4. For any state-certified ambulance service, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.

B REGIONAL REVIEW

Every **Level I Highway Village** should:

1. Coordinate a community EMS review using the recommendations contained in *Alaska EMS Goals* every three years.

11 DISASTER RESPONSE

A COORDINATION

Every **Level I Highway Village** should:

1. Maintain an integrated all-hazard disaster plan.
2. Be included in regional/sub-area disaster plans. The plan should identify the most likely disaster threats, address these threats with action plans, define the roles and responsibilities of key public health and safety officials in the even of a disaster, and explain how regional and state disaster response resources are accessed.

B TRANSPORTATION

Every **Level I Highway Village** should have:

1. A plan for ensuring that ill or injured patients can be triaged, treated/stabilized, and evacuated from the community in a disaster.
2. A system for retrieving equipment used in transports.

C PERSONNEL

Every **Level I Highway Village** should have:

1. A member of the community appointed by the community leaders as the Local Disaster Preparedness Coordinator.
2. Personnel with training in the Incident Command System, familiarity about the initial response to a disaster, and the ability to obtain additional personnel, equipment, supplies, and transportation resources.

D TRAINING

Every **Level I Highway Village** should have:

1. The Disaster Preparedness Coordinator complete the following FEMA Home Study Courses: *HS-1 Emergency Program Manager, HS-2 Emergency Management, USA; HS-5 Hazardous Materials: A Citizen's Orientation.*
2. Periodic disaster exercises that include those individuals and agencies most likely to be involved in disaster response.

F FACILITIES & EQUIPMENT

Every **Level I Highway Village** should:

1. Have sufficient equipment to initiate a rapid and safe response to potential disaster threats.
2. Have a plan for accessing additional equipment and supplies, through mutual aid agreements or direct requests to regional and state disaster agencies.
3. Have an established plan for EMS equipment resupply and return.
4. Evaluate and designate local buildings (schools, churches, community centers) as resources in the disaster plan for sheltering.
5. Identify potential triage, treatment, and transfer sites in disaster facilities.
6. Have pre-stocked disaster supplies available in case of mass casualty disasters, as recommended in Section **737.2**.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTAINANCE

Every **Level I Highway Village** should:

1. Establish and maintain written mutual aid agreements between local emergency response agencies and with adjacent and neighboring communities.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Level I Highway Village** should have:

1. When possible, a physician identified for certified or non-certified services, who agrees to fulfill the responsibilities of a physician medical director as outlined in the EMS regulations.
2. The capability for medical direction by phone or radio.
3. For non-certified services, assistance in obtaining medical direction from the regional EMS office.
4. A system to get information back to the provider about the original patient.

***B REGIONAL/STATE EMS SYSTEM
MEDICAL DIRECTORS***

Every **Level I Highway Village** should:

1. Know how to contact the State/Regional EMS Medical Directors for additional information on medical direction.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Level I Highway Village** should have:

1. An injury prevention plan that includes an assessment of community injury problems and objectives for public education and school health education.
 - The community assessment should identify the major causes of injury within the area, methods of preventing or limiting the risk of injuries, and prevention resources.
 - The public education component should provide activities to build public awareness about information on prevention, and details about accessing EMS resources.
 - The school health education component should provide prevention and survival education for all school age children.
2. Ordinances and policies in place that decrease the risk of injuries to community residents and visitors.

B TRAINING

Every **Level I Highway Village** should have:

1. Local health, social services, education, and public safety personnel who are trained to provide injury prevention information as a part of routine duties. Information is available from the State EMS Office.
2. Injury prevention reading materials and videos available for self-study including the books, *Alaska Injury Prevention Plan* (available from the State EMS Office); *Injury Prevention, Meeting the Challenge*, and *The Injury Prevention Fact Book* in an accessible location such as public libraries.

SECTION 630
LEVEL II
ISOLATED TOWNS
OR SUB-REGIONAL AREAS

OVERVIEW

This section contains the specific EMS recommendations for **Level II Isolated Sub-Regional Centers or Towns**. (See **Section 410** for the definition of a Level II Isolated Sub-Regional Center or Town.) The recommendations are organized in a fourteen-component framework described in **Section 420**.

The section is divided into two subsections. Communities classified as **Level II Isolated Sub-Regional Centers or Towns** are listed in **Section 631**. The recommendations are shown in **Section 632**. Refer to **Section 440 – Prehospital/Hospital/Post-Hospital Index** if you need to know how these recommendations relate to hospital care.

Level II Isolated Sub-Regional Centers have mid-level practitioner (PA or NP) or physician services.

631 Community Listings

INTERIOR REGION

Big Delta
Delta Junction
Fort Yukon
Galena
Healy
McGrath
Tanana
Tok

NORTON SOUND REGION

Unalakleet

SOUTHEAST REGION

Craig
Gustavus
Haines
Hoonah
Klawock
Pelican
Skagway
Thorne Bay
Yakutat

Annette Island Sub-Area

Metlakatla

SOUTHERN REGION

Aleutian/Pribilof Islands Sub-Area

Adak (military)
Akutan
Amchitka (military)
King Cove
Saint George
Saint Paul
Sand Point
Shemya Station (military)
Unalaska

Bristol Bay Sub-Area

Chignik

Naknek
Togiak

Copper River Sub-Area

Glennallen

Kenai Peninsula Borough Sub-Area

Seldovia

Prince William Sound Sub-Area

Whittier

YUKON-KUSKOKWIM REGION

Aniak

632 Recommendations

I PERSONNEL

A ADMINISTRATION

Every **Level II Isolated Sub-Regional Center** should have:

1. A designated person to coordinate EMS activities.
2. Documented quarterly meetings for those involved in EMS to review responsibilities and administrative issues and coordinate activities.
3. Quarterly contact with regional or sub-area EMS coordinator.
4. Input into a regional/sub-area EMS plan.
5. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as indicated.
6. A physician who assumes the responsibilities of a medical director outlined in the EMS regulations.

B PROVIDERS

I Prehospital Emergency Personnel

Every **Level II Isolated Sub-Regional Center** should have:

1. At least two EMT-IIIs and five EMT-Is,
 - Available to provide emergency medical care at all times;
 - Trained in the use of communications as appropriate for local resources; and
 - With access to physician medical consultation at all times.
2. At least two people in every high risk site, such as schools and remote occupational areas trained to the Emergency Trauma Technician level or above.
3. Those communities with extensive roadways should have an organized first responder service with personnel trained to at least the Emergency Trauma Technician level, but preferably the EMT-I level.
4. At least two EMS providers trained in defibrillation.
5. All active EMTs in the emergency medical service trained in Prehospital Trauma Life

Support or Basic Trauma Life Support, and extrication.

II Air Medical Services

Every **Level II Isolated Sub-Regional Center** should have:

1. Availability of, or access to, a state certified medevac service.
2. On every medevac utilizing local personnel, an attendant with a minimum of EMT-I skill level, with DHSS-approved air medical escort training.
3. On every medevac involving advanced life support, an attendant at the EMT-II skill level or above with DHSS-approved air medical escort training.
4. On every medevac with a patient requiring advanced cardiac life support, an attendant at the EMT-III level or above with DHSS-approved air medical escort training.

III Clinic Providers

Every **Level II Isolated Sub-Regional Center** should have:

1. CHAs and CHPs trained to at least the EMT-I level with additional training in DHSS-approved air medical care, pediatric emergencies, oxygen therapy, and IV fluid skills.
2. Mid-level practitioners or physicians trained in Advanced Trauma Life Support (ATLS), Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), and DHSS-approved air medical care.

IV Injury Prevention

Every **Level II Isolated Sub-Regional Center** should have:

1. A person designated to coordinate injury prevention activities in the community.

V Public Safety

Every **Level II Isolated Sub-Regional Center** should have:

1. All search and rescue personnel trained to at least the Emergency Trauma Technician level.

2. All law enforcement officers and firefighters trained to at least the Emergency Trauma Technician level.

2 TRAINING

A STANDARDS

Every **Level II Isolated Sub-Regional Center** should have:

1. Basic and advanced training programs for all levels of prehospital and clinic care providers including pediatric and trauma care, use of automated external defibrillators, and DHSS-approved air medevac training.
2. All emergency medical services personnel trained to applicable local, state, and national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.
3. For all emergency responders in the community, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.
4. Access to state approved emergency medical dispatcher training programs.

B PREHOSPITAL TRAINING PERSONNEL

Every **Level II Isolated Sub-Regional Center** should have:

1. At least one First Aid and CPR Instructor.
2. At least one state certified EMT Instructor.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Level II Isolated Sub-Regional Center** should have:

1. A system for direct two-way communications between emergency care providers and the designated emergency care receiving facility to which they refer patients, and with their medical director.
2. A means for two-way communications between all emergency responders.

3. A means for two-way communications among search and rescue personnel.
4. A means to dispatch first responders or ambulance service personnel at all times.
5. A current inventory of communications equipment.
6. A plan that incorporates current and local communications equipment with the regional plan.
7. New equipment procurements coordinated with the regional EMS agency.
8. Emergency care providers trained in relay of medical communications, as appropriate to their local resources.
9. One telephone number, preferably 911 Enhanced, to access fire, law enforcement and emergency medical services.

B STATE SYSTEM

Every **Level II Isolated Sub-Regional Center** should:

1. Have personnel who are familiar with the state EMS communications plan and how to obtain copies and/or additional information.
2. Ensure that proposed communications resources are compatible with existing and anticipated local, regional, and state communications plans and systems.

C BACK-UP & RELIABILITY

Every **Level II Isolated Sub-Regional Center** should have:

1. A weekly test of the EMS communications system and a log which records the communications system's reliability.
2. Predetermined procedures for maintaining EMS communications equipment.
3. A backup system for direct two-way communications between designated emergency care providers and the hospital to which they refer patients, and with their physician supervisors.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

Every **Level II Isolated Sub-Regional Center** should have:

1. Access to a state-certified air medical service.
2. Organized agencies providing emergency patient care certified as a ground ambulance at the appropriate level.
3. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency medical services and facilities.
4. Local triage and transfer protocols.
5. An organized quality improvement program for all air medical and ground ambulance services.

B RESOURCES

I Ground Ambulances

Every **Level II Isolated Sub-Regional Center** should have:

1. A state-certified emergency medical service (ambulance service wherever appropriate) on call at all times with:
 - A locally determined response time standard which defines the time from notification to arrival at the scene for normal emergency responses. It is recommended that an emergency responder arrive on scene within ten minutes where geographically feasible. Rural communities should establish a standard with consideration for outlying variables such as local road and weather conditions, and staffing patterns.
 - At least one EMT-II on transports of over 30 minutes.
 - Written mutual aid agreements with adjacent services (see **Component 12**).
2. A highway first responder system with:
 - Response time for first responders to the scene within 15 minutes of notification, for at least 75 percent of calls.
 - Rural communities should establish a standard with consideration for outlying variables.
 - Written mutual aid agreements between the emergency medical ambulance service and highway first responders who are not part of the service.

II Air Medical Services

Every **Level II Isolated Sub-Regional Center** should have:

1. A maintained landing strip/area or float ramp for fixed-wing/helicopter aircraft with means to provide lighting for emergencies.
2. A designated person/agency responsible for ensuring landing area safety, and storing emergency lighting devices.
3. Immediate access to air transport equipment as recommended in **Section 733** including pediatric emergency care equipment and medications (see **Section 733.4**).
4. Access within a reasonable period of time, to a state-certified air medical service for transport and for interhospital transfer when appropriate. Alternative transport should be planned for when these resources are unavailable or weather hinders their use.

C PROTOCOLS

Every **Level II Isolated Sub-Regional Center** should have:

1. A plan for transporting patients based on the degree of injury, available equipment and the level of personnel available to accompany a particular type of transport (see *Alaska Trauma Triage, Transport & Transfer Guidelines*).
2. Established procedures for emergency air transport of adult and pediatric patients as delineated in the *Alaska Medevac Manual*.
3. A system for retrieving equipment transported with the patient.
4. Posted procedures for patient transport.
5. For all transport utilizing local personnel standing orders for patient transport.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

Every **Level II Isolated Sub-Regional Center** should have:

1. A clinic equipped to treat or provide initial stabilization for emergency patients (see **Section 734.2**).
2. Basic diagnostic X-ray and lab capabilities.

B EQUIPMENT & SUPPLIES

Every **Level II Isolated Sub-Regional Center** should have:

1. Trauma kits readily available for first responders, equipped as recommended in **Section 731.2**.
2. One extrication kit for first responders, equipped as recommended in **Section 731.2**.
3. Equipment and supplies appropriate for training level of EMS providers.
4. Equipment and supplies for emergency care for both pediatric and adult patients as recommended in **Section 734.2**.
5. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Level II Isolated Sub-Regional Center** should have:

1. Coordination between public safety agencies with mutual aid agreements.

B ENVIRONMENTAL RESPONSE

Every **Level II Isolated Sub-Regional Center** should have:

1. A community plan for hazardous materials response which covers the topics in *Managing Hazardous Materials Incidents, Volume I* (available from the State EMS Office).
2. Personnel trained in the recognition of, and immediate evacuation and protection of people, during a hazardous materials emergency.
3. A procedure for notifying appropriate agencies if a hazardous materials release occurs.
4. A procedure for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release, including teams trained in decontamination, treatment, and transport of seriously contaminated patients.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Level II Isolated Sub-Regional Center** should have:

1. A plan for monitoring emergency care costs and for coordinating patient care billings with appropriate local or regional agencies.
2. A copy of *The EMS Billing Workbook* (available from the State EMS Office).

B EQUAL CARE OPPORTUNITY

Every **Level II Isolated Sub-Regional Center** should:

1. Ensure that all patients in need of EMS are provided emergency care and transportation without regard to race, creed, color, sex, national origin, disability, or ability to pay.

C SERVICE AVAILABILITY

Every **Level II Isolated Sub-Regional Center** should have:

1. Access, via telephone or radio, to trained and equipped emergency medical responders at all times.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Level II Isolated Sub-Regional Center** should:

1. Maintain training, personnel, and medical records, including the EMS patient encounter form, as required by applicable state and federal laws.
2. Have ambulance run report forms which meet minimum state data requirements kept for all emergency response (see **Section 742**).
3. Have clinic emergency logs maintained by appropriate clinic personnel.

B REGIONAL & STATE COORDINATION

Every **Level II Isolated Sub-Regional Center** should:

1. Have a system for providing summary data to regional and state EMS agencies.
2. Use a state-approved patient care form for emergency medical services.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Level II Isolated Sub-Regional Center** should have:

1. All residents, visitors and schools should know how to access the local EMS system preferably through a 911 system.

B EMERGENCY RESPONSE

Every **Level II Isolated Sub-Regional Center** should have:

1. At least one certified CPR instructor per 500 people.
2. At least one First Aid instructor per 500 people.
3. First Aid and CPR classes for all school students.
4. First Aid and CPR classes for community residents annually.
5. Access to training aids necessary for CPR and First Aid training.
6. At least 25 percent of all residents trained in CPR.
7. Posted procedures for accessing the local EMS system available to all school personnel for the efficient handling of injuries and other emergencies, including plans for the transport of critically injured or ill children to an appropriate facility.
8. Information available to public safety and local government personnel as to who to contact in case of a disaster.

C CONSUMER PARTICIPATION

Every **Level II Isolated Sub-Regional Center** should:

1. Encourage consumer participation in EMS planning and policy development.
2. Identify consumers with special interest in EMS and encourage their participation in appropriate events.
3. Maintain a library of injury prevention and safety resources in a school (see **Component 14B**).
4. Have a local EMS or health council with consumer representation.

5. Encourage participation by business and government leaders.

10 EVALUATION

A LOCAL REVIEW

Every **Level II Isolated Sub-Regional Center** should:

1. Periodically provide patient encounter forms for review by the subarea or regional office and the regional medical director
2. Periodically meet and review the community EMS status as compared with the applicable recommendations in *Alaska EMS Goals*.
3. Periodically coordinate with identified allied agencies to confirm or reestablish support and assistance in meeting recommended community goals.
4. Have a physician or mid-level provider review all emergency response runs to determine whether the care and transfer provided were appropriate and in accordance with local, regional, and state guidelines, questionable runs should be directed to the medical director (s).
5. For any state-certified ambulance service, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.

B REGIONAL REVIEW

Every **Level II Isolated Sub-Regional Center** should:

1. Coordinate a community EMS review using the recommendations contained in *Alaska EMS Goals* every three years.

11 DISASTER RESPONSE

A COORDINATION

Every **Level II Isolated Sub-Regional Center** should:

1. Maintain an integrated all-hazard plan.
2. Be included in regional/sub-area disaster plans. The plan should identify the most likely disaster threats, address these threats with action plans, define the roles and responsibilities of key public health and safety officials in the even of a disaster, and

explain how regional and state disaster response resources are accessed.

B TRANSPORTATION

Every **Level II Isolated Sub-Regional Center** should have:

1. A plan for ensuring that ill or injured patients can be triaged, treated/stabilized, and evacuated from the community in a disaster.
2. A system for retrieving equipment used in transports.

C PERSONNEL

Every **Level II Isolated Sub-Regional Center** should have:

1. A member of the community appointed by the community leaders as the Local Disaster Preparedness Coordinator.
2. Personnel with training in the Incident Command System, familiarity about the initial response to a disaster, and the ability to obtain additional personnel, equipment, supplies, and transportation resources.
3. Adequate community personnel trained and certified as Red Cross Shelter Managers.

D TRAINING

Every **Level II Isolated Sub-Regional Center** should have:

1. The Disaster Preparedness Coordinator complete the following FEMA Home Study Courses: *HS-1 Emergency Program Manager*, *HS-2 Emergency Management, USA*; *HS-5 Hazardous Materials: A Citizen's Orientation*.
2. Periodic disaster exercises that include those individuals and agencies most likely to be involved in disaster response.
3. Community Shelter Managers complete a Shelter Systems Officer Course approved by the American Red Cross.

F FACILITIES & EQUIPMENT

Every **Level II Isolated Sub-Regional Center** should:

1. Have sufficient equipment to initiate a rapid and safe disaster response.
2. Have a plan for accessing additional equipment and supplies, through mutual aid agreements or direct requests to regional and state disaster agencies.
3. Have an established plan for EMS equipment resupply and return.
4. Evaluate and designate local buildings (schools, churches, community centers) as resources in the disaster plan for sheltering.
5. Identify potential triage, treatment, and transfer sites in disaster facilities.
6. Have pre-stocked disaster supplies available in case of mass casualty disasters, as recommended in **Section 737.2**.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTAINANCE

Every **Level II Isolated Sub-Regional Center** should:

1. Establish and maintain written mutual aid agreements between local emergency response agencies, e.g. EMS, fire, police, health clinic, etc.
2. Establish and maintain written mutual aid agreements with adjacent and neighboring communities.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Level II Isolated Sub-Regional Center** should have:

1. A physician identified for certified or non-certified services, who agrees to fulfill the responsibilities of a physician medical director as outlined in the EMS regulations.
2. The capability for medical direction by phone or radio.
3. For non-certified services, assistance in obtaining medical direction from the regional EMS office.
4. A system to get information back to the provider about the original patient.
5. A QA/QI system that the physician medical director oversees.

B REGIONAL/STATE EMS SYSTEM MEDICAL DIRECTORS

Every **Level II Isolated Sub-Regional Center** should:

1. Know how to contact the State/Regional EMS Medical Directors for additional information on medical direction.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Level II Isolated Sub-Regional Center** should have:

1. An injury prevention plan that includes an assessment of community injury problems and objectives for public education and school health education.
 - The community assessment should identify the major causes of injury within the area, methods of preventing or limiting the risk of injuries, and prevention resources.
 - The public education component should provide activities to build public awareness about information on prevention, and details about accessing EMS resources.
 - The school health education component should provide prevention and survival education for all school age children.
2. Ordinances and policies in place that decrease the risk of injuries to community residents and visitors.

B TRAINING

Every **Level II Isolated Sub-Regional Center** should have:

1. Local health, social services, education, and public safety personnel who are trained to provide injury prevention information as a part of routine duties. Information is available from the State EMS Office.
2. Injury prevention reading materials and videos available for self-study including the books, Alaska Injury Prevention Plan (available from the State EMS Office); Injury Prevention, Meeting the Challenge, and The Injury Prevention Fact Book in an accessible location such as public libraries.

SECTION 640
LEVEL II
HIGHWAY TOWNS
OR SUB-REGIONAL CENTERS

OVERVIEW

This section contains the specific EMS recommendations for **Level II Highway Sub-Regional Centers or Towns**. (See **Section 410** for the definition of a Level II Highway Sub-Regional Center or Town.) The recommendations are organized in a fourteen-component framework described in **Section 420**.

The section is divided into two subsections. Communities classified as **Level II Highway Sub-Regional Centers or Towns** are listed in **Section 641**. The recommendations are shown in **Section 642**. Refer to **Section 440-Prehospital/Hospital/Post-Hospital Index** if you need to know how these recommendations relate to hospital care.

Level II Highway Sub-Regional Centers have mid-level practitioner (PA or NP) or physician services.

641 Community Listings

INTERIOR REGION

Clear (military)
 Eielson Air Force Base (military)
 Fort Greely (military)
 Nenana
 North Pole

SOUTHERN REGION

Anchorage & Cook Inlet

Chugiak
 Eagle River
 Fort Richardson (military)
 Girdwood
 Peters Creek

Kodiak Island Sub-Area

Kodiak Station (military)

Kenai Peninsula Borough

Anchor Point
 Kenai
 Nikiski
 Ridgeway
 Sterling

Matanuska-Susitna Borough Sub-Area

Big Lake
 Meadow Lakes
 Talkeetna
 Wasilla

642 Recommendations

I PERSONNEL

A ADMINISTRATION

Every **Level II Highway Sub-Regional Center** should have:

1. A designated person to coordinate EMS activities.
2. Documented quarterly meetings for those involved in EMS to review responsibilities and administrative issues and coordinate activities.
3. Quarterly contact with regional or sub-area EMS coordinator.
4. Input into a regional/sub-area EMS plan.
5. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as indicated.
6. A physician who assumes the responsibilities of a medical director outlined in the EMS regulations if applicable.

B PROVIDERS

I Prehospital Emergency Personnel

Every **Level II Highway Sub-Regional Center** should have:

1. At least two EMT-IIs and five EMT-Is,
 - Available to provide emergency medical care at all times;
 - Trained in the use of communications as appropriate for local resources; and
 - With access to physician medical consultation at all times.
2. At least two people in every high risk site, such as schools and remote occupational areas trained to the Emergency Trauma Technician level or above.
3. All active EMTs in the emergency medical service trained in Prehospital Trauma Life Support or Basic Trauma Life Support, and extrication.
4. At least two EMS providers trained in defibrillation.

II Clinic Providers

Every **Level II Highway Sub-Regional Center** should have:

1. CHAs and CHPs, if available, trained to at least the EMT-I level with additional training in DHSS-approved air medical care, pediatric emergencies, oxygen therapy, and IV fluid skills.
2. Mid-level practitioners or physicians trained in Advanced Trauma Life Support (ATLS), Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), and DHSS-approved air medical care.

III Injury Prevention

Every **Level II Highway Sub-Regional Center** should have:

1. A person designated to coordinate injury prevention activities in the community.

IV Public Safety

Every **Level II Highway Sub-Regional Center** should have:

1. All search and rescue personnel trained to at least the Emergency Trauma Technician level.
2. All law enforcement officers and firefighters trained to at least the Emergency Trauma Technician level.

2 TRAINING

A STANDARDS

Every **Level II Highway Sub-Regional Center** should have:

1. Basic and advanced training programs for all levels of prehospital and clinic care providers including pediatric and trauma care, use of automated external defibrillators, and DHSS-approved air medevac training.
2. All emergency medical services personnel trained to applicable local, state, and national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.

3. For all emergency responders in the community, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.
4. Access to state approved emergency medical dispatcher training programs.

B PREHOSPITAL TRAINING PERSONNEL

Every **Level II Highway Sub-Regional Center** should have:

1. At least one First Aid and CPR Instructor.
2. At least one state certified EMT Instructor.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Level II Highway Sub-Regional Center** should have:

1. A system for direct two-way communications between emergency care providers and the designated emergency care receiving facility to which they refer patients, and with their medical director.
2. A means for two-way communications between all emergency responders.
3. A means for two-way communications among search and rescue personnel.
4. A means to dispatch first responders or ambulance service personnel at all times.
5. A current inventory of communications equipment.
6. A plan that incorporates current and local communications with the regional plan.
7. New equipment procurements coordinated with the regional EMS agency.
8. Emergency care providers trained in relay of medical communications, as appropriate to their local resources.
9. One telephone number, preferably 911 Enhanced, to access fire, law enforcement and emergency medical services.

B STATE SYSTEM

Every **Level II Highway Sub-Regional Center** should:

1. Have personnel who are familiar with the state EMS communications plan and how to obtain copies and/or additional information.

2. Ensure that proposed communications resources are compatible with existing and anticipated local, regional, and state communications plans and systems.

C BACK-UP & RELIABILITY

Every **Level II Highway Sub-Regional Center** should have:

1. A weekly test of the EMS communications system and a log which records the communications system's reliability.
2. Predetermined procedures for maintaining EMS communications equipment.
3. A backup system for direct two-way communications between designated emergency care providers and the hospital to which they refer patients, and with their physician supervisors.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

Every **Level II Highway Sub-Regional Center** should have:

1. Access to a state-certified air medical service.
2. Organized agencies providing emergency patient care certified as a ground ambulance at the appropriate level.
3. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency medical services and facilities.
4. Local triage and transfer protocols.
5. An organized quality improvement program for all air medical and ground ambulance services.

B RESOURCES

I Ground Ambulances

Every **Level II Highway Sub-Regional Center** should have:

1. A state-certified emergency medical service (ambulance service wherever appropriate) on call at all times with:
 - A locally determined response time standard which defines the time from notification to

arrival at the scene for normal emergency responses. It is recommended that an emergency responder arrive on scene within ten minutes where geographically feasible. Rural communities should establish a standard with consideration for outlying variables such as local road and weather conditions, and staffing patterns.

- At least one EMT-II on transports of over 30 minutes.
- Written mutual aid agreements with adjacent services (see **Component 12**).
- 2. A highway first responder system with:
 - Response time for first responders to the scene within 15 minutes of notification, for at least 75 percent of calls.
 - Rural communities should establish a standard with consideration for outlying variables.
 - Written mutual aid agreements between the emergency medical ambulance service and highway first responders who are not part of the service.

II Air Medical Services

Every **Level II Highway Sub-Regional Center** should have:

1. Access, within a reasonable period of time, to a state-certified air medical service for transport and for interhospital transfer when appropriate.

C PROTOCOLS

Every **Level II Highway Sub-Regional Center** should have:

1. A plan for transporting patients based on the degree of injury, available equipment and the level of personnel available to accompany a particular type of transport (see *Alaska Trauma Triage, Transport & Transfer Guidelines*).
2. Established procedures for emergency air transport of adult and pediatric patients as delineated in the *Alaska Medevac Manual*.
3. A system for retrieving equipment transported with the patient.
4. Posted procedures for patient transport.
5. For all transport utilizing local personnel standing orders for patient transport.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

Every **Level II Highway Sub-Regional Center** should have:

1. A clinic equipped to treat or provide initial stabilization for emergency patients (see **Section 734.2**). This may be the health center or another designated emergency care center.
2. Basic diagnostic X-ray and lab capabilities.

B EQUIPMENT & SUPPLIES

Every **Level II Highway Sub-Regional Center** should have:

1. Trauma kits readily available for first responders, equipped as recommended in **Section 731.2**.
2. One extrication kit for first responders, equipped as recommended in **Section 731.2**.
3. Equipment and supplies appropriate for training level of EMS providers.
4. Equipment and supplies for emergency care for both pediatric and adult patients as recommended in **Section 734.2**.
5. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Level II Highway Sub-Regional Center** should have:

1. Coordination between public safety agencies with mutual aid agreements.

B ENVIRONMENTAL RESPONSE

Every **Level II Highway Sub-Regional Center** should have:

1. A community plan for hazardous materials response which covers the topics in *Managing Hazardous Materials Incidents, Volume I* (available from the State EMS Office).

2. Personnel trained in the recognition of, and immediate evacuation and protection of people, during a hazardous materials emergency.
3. A procedure for notifying appropriate agencies if a hazardous materials release occurs.
4. A procedure for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release, including teams trained in decontamination, treatment, and transport of seriously contaminated patients.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Level II Highway Sub-Regional Center** should have:

1. A plan for monitoring emergency care costs and for coordinating patient care billings with appropriate local or regional agencies.
2. A copy of *The EMS Billing Workbook* (available from the State EMS Office).

B EQUAL CARE OPPORTUNITY

Every **Level II Highway Sub-Regional Center** should:

1. Ensure that all patients in need of EMS are provided emergency care and transportation without regard to race, creed, color, sex, national origin, disability, or ability to pay.

C SERVICE AVAILABILITY

Every **Level II Highway Sub-Regional Center** should have:

1. Access, via telephone or radio, to trained and equipped emergency medical responders at all times.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Level II Highway Sub-Regional Center** should:

1. Maintain training, personnel, and medical records, including the EMS patient encounter form, as required by applicable state and federal laws.
2. Have ambulance run report forms which meet minimum state data requirements kept for all emergency response (see **Section 742**).
3. Have clinic emergency logs maintained by appropriate clinic personnel.

B REGIONAL & STATE COORDINATION

Every **Level II Highway Sub-Regional Center** should:

1. Have a system for providing summary data to regional and state EMS agencies.
2. Use a state-approved patient care form for emergency medical services.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Level II Highway Sub-Regional Center** should have:

1. All residents, visitors and schools should know how to access the local EMS system preferably through a 911 system.

B EMERGENCY RESPONSE

Every **Level II Highway Sub-Regional Center** should have:

1. At least one certified CPR instructor per 500 people.
2. At least one First Aid instructor per 500 people.
3. First Aid and CPR classes for all school students.
4. First Aid and CPR classes for community residents annually.
5. Access to training aids necessary for CPR and First Aid training.
6. At least 25 percent of all residents trained in CPR.
7. Posted procedures for accessing the local EMS system available to all school personnel for the efficient handling of injuries and other emergencies, including

plans for the transport of critically injured or ill children to an appropriate facility.

8. Information available to public safety and local government personnel as to who to contact in case of a disaster.

C CONSUMER PARTICIPATION

Every **Level II Highway Sub-Regional Center** should:

1. Encourage consumer participation in EMS planning and policy development.
2. Identify consumers with special interest in EMS and encourage their participation in appropriate events.
3. Maintain a library of injury prevention and safety resources in a school (see **Component 14B**).
4. Have a local EMS or health council with consumer representation.
5. Encourage participation by business and government leaders.

10 EVALUATION

A LOCAL REVIEW

Every **Level II Highway Sub-Regional Center** should:

1. Periodically provide patient encounter forms for review by the subarea or regional office and the regional medical director
2. Annually meet and review the community EMS status as compared with the applicable recommendations in *Alaska EMS Goals*.
3. Periodically coordinate with identified allied agencies to confirm or reestablish support and assistance in meeting recommended community goals.
4. Have a physician or mid-level provider review all emergency response runs to determine whether the care and transfer provided were appropriate and in accordance with local, regional, and state guidelines, questionable runs should be directed to the medical director (s).
5. For any state-certified ambulance service, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.

B REGIONAL REVIEW

Every **Level II Highway Sub-Regional Center** should:

1. Coordinate a community EMS review using the recommendations contained in *Alaska EMS Goals* every three years.

11 DISASTER RESPONSE

A COORDINATION

Every **Level II Highway Sub-Regional Center** should:

1. Maintain an integrated all-hazard plan.
2. Be included in regional/sub-area disaster plans. The plan should identify the most likely disaster threats, address these threats with action plans, define the roles and responsibilities of key public health and safety officials in the event of a disaster, and explain how regional and state disaster response resources are accessed.

B TRANSPORTATION

Every **Level II Highway Sub-Regional Center** should have:

1. A plan for ensuring that ill or injured patients can be triaged, treated/stabilized, and evacuated from the community in a disaster.
2. A system for retrieving equipment used in transports.

C PERSONNEL

Every **Level II Highway Sub-Regional Center** should have:

1. A member of the community appointed by the community leaders as the Local Disaster Preparedness Coordinator.
2. Personnel with training in the Incident Command System, familiarity about the initial response to a disaster, and the ability to obtain additional personnel, equipment, supplies, and transportation resources.
3. Adequate community personnel trained and certified as Red Cross Shelter Managers.

D TRAINING

Every **Level II Highway Sub-Regional Center** should have:

1. The Disaster Preparedness Coordinator complete the following FEMA Home Study Courses: *HS-1 Emergency Program Manager, HS-2 Emergency Management, USA; HS-5 Hazardous Materials: A Citizen's Orientation.*
2. Periodic disaster exercises that include those individuals and agencies most likely to be involved in disaster response.
3. Community Shelter Managers complete a Shelter Systems Officer Course approved by the American Red Cross.

F FACILITIES & EQUIPMENT

Every **Level II Highway Sub-Regional Center** should:

1. Have sufficient equipment to initiate a rapid and safe disaster response.
2. Have a plan for accessing additional equipment and supplies, through mutual aid agreements or direct requests to regional and state disaster agencies.
3. Have an established plan for EMS equipment resupply and return.
4. Evaluate and designate local buildings (schools, churches, community centers) as resources in the disaster plan for sheltering.
5. Identify potential triage, treatment, and transfer sites in disaster facilities.
6. Have pre-stocked disaster supplies available in case of mass casualty disasters, as recommended in **Section 737.2**.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTAINANCE

Every **Level II Highway Sub-Regional Center** should:

1. Establish and maintain written mutual aid agreements between local emergency response agencies, e.g. EMS, fire, police, health clinic, etc.
2. Establish and maintain written mutual aid agreements with adjacent and neighboring communities.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Level II Highway Sub-Regional Center** should have:

1. A physician identified for certified or non-certified services, who agrees to fulfill the responsibilities of a physician medical director as outlined in the EMS regulations.
2. The capability for medical direction by phone or radio.
3. For non-certified services, assistance in obtaining medical direction from the regional EMS office.
4. A system to get information back to the provider about the original patient.
5. A QA/QI system that the physician medical director oversees.

B REGIONAL/STATE EMS SYSTEM MEDICAL DIRECTORS

Every **Level II Highway Sub-Regional Center** should:

1. Know how to contact the State/Regional EMS Medical Directors for additional information on medical direction.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Level II Highway Sub-Regional Center** should have:

1. An injury prevention plan that includes an assessment of community injury problems and objectives for public education and school health education.
 - The community assessment should identify the major causes of injury within the area, methods of preventing or limiting the risk of injuries, and prevention resources.
 - The public education component should provide activities to build public awareness about information on prevention, and details about accessing EMS resources.
 - The school health education component should provide prevention and survival education for all school age children.
2. Ordinances and policies in place that decrease the risk of injuries to community residents and visitors.

B TRAINING

Every **Level II Highway Sub-Regional Center** should have:

1. Local health, social services, education, and public safety personnel who are trained to provide injury prevention information as a part of routine duties. Information is available from the State EMS Office.
2. Injury prevention reading materials and videos available for self-study including the books, *Alaska Injury Prevention Plan* (available from the State EMS Office); *Injury Prevention, Meeting the Challenge*, and *The Injury Prevention Fact Book* in an accessible location such as public libraries.

SECTION 650
LEVEL III
LARGE TOWNS OR
REGIONAL CENTERS

OVERVIEW

This section contains the specific EMS recommendations for **Level III Large Towns or Regional Centers**. (See **Section 410** for the definition of a Level III Large Town or Regional Center.) The recommendations are organized in a fourteen-component framework described in **Section 420**.

The section is divided into two subsections. Communities classified as **Level III Large Towns or Regional Centers** are listed in **Section 651**. The recommendations are shown in **Section 652**. Refer to **Section 440 – Prehospital/Hospital/Post-Hospital Index** if you need to know how these recommendations relate to the hospital.

A **Level III Large Town or Regional Center** has a community hospital with physicians.

651 Community Listings

INTERIOR REGION

Fort Wainwright (military)

NORTH SLOPE BOROUGH REGION

Barrow

NORTHWEST ARCTIC BOROUGH REGION

Kotzebue

NORTON SOUND REGION

Nome

SOUTHEAST REGION

Petersburg

Sitka

Wrangell

SOUTHERN REGION

Bristol Bay Sub-Area

Dillingham

Kenai Peninsula Borough Sub-Area

Homer Seward

Kodiak Sub-Area

Kodiak City

Prince William Sound Sub-Area

Cordova

Valdez

YUKON/KUSKOKWIM REGION

Bethel

652 Recommendations

I PERSONNEL

A ADMINISTRATION

Every **Level III Regional Center** should have:

1. A designated person to coordinate EMS activities with a special emphasis on trauma (e.g., injury prevention, surveillance, training).
2. A local EMS Council to coordinate EMS and trauma systems development, which meets at least quarterly to review responsibilities and coordinate activities.
3. Quarterly contact with regional or sub-area EMS contractors.
4. Input into a regional and state trauma and EMS plans.
5. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as needed.
6. A physician medical director who will assume the responsibilities outlined in state EMS regulations.
7. A plan for integrating local EMS and trauma activities with the EMS system components as well as other health care systems.

B PROVIDERS

I Prehospital Emergency Providers

Every **Level III Regional Center** should have:

1. An adequate number of EMT-Is, EMT-Is, EMT-IIIs, and Mobile Intensive Care Paramedics (MICPs):
 - Available to provide emergency medical care at all times;
 - Trained in the use of communications as appropriate for local resources; and
 - With access to physician medical consultation at all times.
2. At least two people in every high risk site, such as schools and remote occupational areas trained to the Emergency Trauma Technician level or above.
3. All active EMTs in the emergency medical service trained in Prehospital Trauma Life Support or Basic Trauma Life Support, and extrication as appropriate.

4. Appropriately equipped first responders with early defibrillation capability.
5. All emergency medical dispatchers trained according to state or national standards.

II Air Medical Providers

Every **Level III Regional Center** should have:

1. Availability of, or access to, a state certified medevac service.
2. On those medevacs with a patient requiring advanced respiratory or cardiac support, an attendant who is a physician, mid-level provider, paramedic, RN or EMT-III with critical care skills, DHSS-approved air medical escort training, and trauma training.

III Acute Care Hospital Providers

Every **Level III Regional Center** should have:

1. For all acute care hospitals providing emergency department services, at least:
 - 24-hour, 7-day-a-week on-call coverage of the emergency department by physicians specializing in emergency medicine, or with specialized emergency care training, including: Advanced Cardiac Life Support, Advanced Trauma Life Support, and Pediatric Advanced Life Support.
 - 24-hour, 7-day-a-week, in-house coverage of the emergency department by nurses trained in trauma nursing, and certified in Advanced Cardiac Life Support and Pediatric Advanced Life Support.
 - All hospital employees with patient care responsibility certified in CPR.
 - A person designated to coordinate organ/tissue harvesting and donation.
2. A hospital that has adequate personnel to meet the standards of an American College of Surgeons Level IV Trauma Center.

IV Injury Prevention

Every **Level III Regional Center** should have:

1. Designated personnel to coordinate and to promote community injury prevention.

V Public Safety

Every **Level III Regional Center** should have:

1. All search and rescue personnel trained to at least the Emergency Trauma Technician level.
2. All law enforcement officers and firefighters trained to at least the Emergency Trauma Technician level.

2 TRAINING

A STANDARDS

Every **Level III Regional Center** should have:

1. Basic and advanced training programs for all levels of prehospital and clinic care providers including pediatric and trauma care, use of automated external defibrillators.
2. All emergency medical services personnel trained to applicable local, state, and national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.
3. For all emergency responders in the community, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.
4. Access to state approved emergency medical dispatcher training programs.
5. An ongoing program for physicians referring patients to familiarize these physicians with critical care guidelines and patient transfer procedures of specialty care referral centers.
6. Ongoing programs to familiarize emergency staff with local social and health resource agencies (e.g., mental health, crisis response, substance abuse, family violence agencies, poison control, disaster coordination, etc.) and the standing orders and field techniques of the prehospital emergency care providers in the area.
7. An ongoing program of in-service education for all nurses with emergency department or critical care responsibilities on emergency or critical care nursing skills.

B PREHOSPITAL TRAINING PERSONNEL

Every **Level III Regional Center** should have:

1. First Aid and CPR Instructors.
2. At least two active EMT-I Instructors.

3. At least one EMT-III Instructor.
4. One DHSS-approved Air Medevac Instructor.
5. A designated EMT Training Coordinator.

C HOSPITAL TRAINING PERSONNEL

Every **Level III Regional Center** should have:

1. A physician willing to assume medical direction responsibilities for BTLs.
2. A physician willing to assume medical director responsibilities for an ACLS.
3. A physician willing to assume medical direction responsibilities for PALS.
4. Hospital inservice personnel (training director).

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Level III Regional Center** should have:

1. Local emergency communications capability, including:
 - First responder access to the next level of emergency care providers.
 - Direct two-way communications between emergency care providers, the designated receiving facility, and their physician supervisor (s).
 - Two-way ambulance-hospital communications with tone alert.
 - Ambulances with mobile radio access to on-duty law enforcement officers.
 - Two-way communications among search and rescue personnel.
 - Two-way mobile radio communications with adjacent ambulance services.
2. For every acute care hospital:
 - Two-way communications with health care providers in the outlying communities it serves.
 - Capability to page on-call staff outside the hospital.
 - A code to notify other hospital staff of an emergency situation.
 - Capability of two-way, air-ground communications with primary air services carrying patients to the hospital.
 - A back-up communications system or procedures for communications during power failures and disasters.

- Communications equipment consolidated into one area for constant monitoring.
 - Orientation and in-service training in use of communications equipment.
3. Certified emergency medical dispatchers capable of dispatching certified emergency personnel and directing bystander care at all times.
 4. An up-to-date inventory of communications equipment used in the EMS system.
 5. A local communications plan that addresses frequency compatibility between all emergency agencies, maintenance, and back-up procedures, and ensures compliance with current and planned FCC requirements.
 6. New equipment procurements that fit the local and regional communications plans and are coordinated with the regional office.
 7. Emergency care providers trained in relay of medical communications, as appropriate to their local resources.
 8. One telephone number, well-advertised and toll free, preferably 911 Enhanced, to access fire, law enforcement, and emergency medical services. An alternate procedure should be arranged in case of 911 Enhanced system failure.

B STATE SYSTEM

Every **Level III Regional Center** should:

1. Have personnel who are familiar with the state EMS communications plan and how to obtain copies and/or additional information.
2. Ensure that proposed communications resources are compatible with existing and anticipated local, regional, and state communications plans and systems.

C BACK-UP & RELIABILITY

Every **Level III Regional Center** should have:

1. A weekly test of the EMS communications system and a log which records the communications system's reliability.
2. Predetermined procedures for maintaining all emergency communications equipment.
3. A backup system for direct two-way communications between designated emergency care providers their designated receiving facilities, and their medical director (s).

4. A procedure for annual review and evaluation of the local communications plan.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

Every **Level III Regional Center** should have:

1. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency medical services and facilities.
2. Local triage and transfer protocols.
3. An organized quality improvement program for all air medical and ground ambulance services.

B RESOURCES

I Ground Ambulances

Every **Level III Regional Center** should have:

1. A state-certified emergency medical service with ambulance (s) on call at all times.
2. A state-certified ambulance service with a locally determined response time standard which defines the time from notification to arrival at the scene for normal emergency responses. It is recommended that the emergency medical service be on scene in 8 minutes or less. Rural communities are encouraged to meet this standard.
3. A first responder system with:
 - Response time for BLS first responders to the scene within four minutes of notification for at least 90 percent of emergencies occurring within major population areas. Rural communities should establish a standard with consideration for outlying variables.
 - Written mutual aid agreements between the emergency medical ambulance service and highway first responders.

II Air Medical Services

Every **Level III Regional Center** should have:

1. Access, within a reasonable period of time, to a state-certified air medical service for transport and for interhospital transfer when appropriate. Alternate transport should be

- planned for when these resources are unavailable or weather hinders their use.
2. At least one hospital with a helicopter landing area near the emergency department.
 3. Within 15 minutes of each hospital, a landing area with lighting for fixed-wing aircraft.
 4. A current schedule of air carriers serving the community, and a list of their requirements for boarding non-ambulatory patients and other emergency patients.
 5. A list of certified air medical services and air taxis for bringing in patients from outlying communities, with information on how they may be contacted, when they are available, and each aircraft's transport capabilities.
 6. For every acute care hospital:
 - One person on every shift designated as a Transfer Coordinator, responsible for knowing procedures and protocols of the receiving facility, and air schedules; and arranging transfer logistics.
 - For the person (s) assigned to coordinate transfers, a checklist of actions required to prepare any patient for transfer.
 - A directory of specific capabilities of those critical care facilities available to receive transferred patients.
 - Available at all times, prepared kits of basic equipment, basic life support, adult, pediatric and specialty kits as recommended in **Section 733-Air Transport**.
 - A means to support respiration, control airways and provide high levels of oxygen during transfer to another facility.
 - On every hospital-to-hospital transfer, a qualified attendant as prescribed by the physician in charge.
 - On every hospital-to-hospital transfer, a record of the patient's pre-hospital condition, as well as initial condition and treatment in hospital.
 - Specific procedures established with referring hospitals/health centers and receiving hospitals for preparation and transport of patients in each critical care area.

III Hospitals

Every **Level III Regional Center** should have:

1. An acute care hospital with:

- A list of certified medevac services available to the community.
- A directory of facilities with critical care capabilities available to receive transferred patients.
- Specific procedures established between referring hospitals and accepting hospitals for preparation and transport of patients in each critical care category.
- For the person (s) assigned to coordinate transfers, a checklist of actions required to prepare any patient for transfer.
- For every hospital-to-hospital transfer, a record of patient's prehospital condition, as well as initial condition and treatment in hospital.
- On all hospital-to-hospital transfers, a qualified medical attendant as prescribed by the physician in charge.
- A means to provide ALS procedures during transfer to another facility.
- A list of local and regional rehabilitation facilities.

C PROTOCOLS

Every **Level III Regional Center** should have:

1. Protocols for a prehospital triage system for identifying major trauma and appropriate destinations for all injured patients.
2. Transport and transfer protocols for adult and pediatric patients based on patient need and hospital resources, including specialty needs (e.g., burns, spinal cord injury).
3. Guidelines for the rapid interfacility transfer of the major trauma patient to the appropriate tertiary trauma care center.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

Every **Level III Regional Center** should have:

1. For those hospitals taking care of trauma care patients, certification by the **American College of Surgeons** as a **Level IV Trauma Center**.
2. At least one acute care hospital equipped with:
 - Lab, blood gas, and X-ray technicians on-call at all times.

- Adult, child, and infant resuscitation equipment, and a plan for its maintenance.
- An area equipped to receive a cardiac patient, with oxygen, monitor/defibrillator, oral suction, and a resuscitation crash cart; and a system to check equipment every shift.
- An emergency power source for care of critical patients in the event of power failure.
- A system for returning equipment received with patients from outlying communities; and retrieving equipment sent with patients to other facilities.
- Agreements with other hospitals in the region defining how resources should be shared during situations that overtax their facilities such as mass casualty disasters.
- A security room or a procedure for keeping combative patients under observation, and to help ensure safety of staff and other patients.
- A procedure and alarm system for protection of staff in the event of a behavioral emergency.

24-hour, 7-day-a-week physician on-call emergency department coverage including:

- protocols for notification and response of physicians and trauma team before arrival of the patient.

At least one acute care hospital with the capabilities to:

- Perform endotracheal intubation and cricothyroidotomies.
- Administer oxygen and monitor oxygen concentrations.
- Support respiration artificially, both manually and mechanically through a respirator.
- Perform pleural decompression by needle thoracentesis using flutter valves, and by chest tube insertions.
- Provide Advanced Cardiac Life Support and Pediatric Advanced Life Support according to the standards of the American Heart Association.
- Use an external cardiac pacemaker on an emergency basis and have patient transfer procedures to a cardiac center.
- Stop continuous bleeding with pressure and instruments.
- Insert peripheral and central IVs on adult and pediatric patients.
- Monitor fluid resuscitation, including Foley catheterization.
- Immobilize a spinal injury until evaluation can be completed.
- Perform complex x-ray examination.

- Perform gastric lavage.
- Perform peritoneal dialysis.
- Modify a patient's core temperature.
- Splint extremities definitively.
- Debride wounds of the extremities.
- Care for complicated perinatal cases when transfer is impractical or impossible, including: emergency Cesarean section within one if adequate resources available, and fetal monitoring.

All hospitals with surgical capabilities and a general surgeon should have the capability to:

- Perform emergency intracranial decompression with neurosurgical consultation.
- Perform emergency abdominal, chest, and vascular surgery.

B EQUIPMENT & SUPPLIES

Every **Level II Highway Sub-Regional Center** should have:

1. Trauma kits readily available for first responders, equipped as recommended in **Section 731.2**.
2. One extrication kit for first responders, equipped as recommended in **Section 731.2**.
3. Equipment and supplies appropriate for training level of EMS providers.
4. Equipment and supplies for emergency care for both pediatric and adult patients as recommended in **Section 734.2**.
5. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Level III Regional Center** should have:

1. Coordination between public safety agencies with mutual aid agreements.

B ENVIRONMENTAL RESPONSE

Every **Level III Regional Center** should have:

1. A community plan for hazardous materials response which covers the topics in *Managing Hazardous Materials Incidents*,

Volume I-II (available from the State EMS Office).

2. Personnel trained in the recognition of, and immediate response to hazardous materials emergencies. Core personnel should be trained to the hazmat first responder operations level.
3. A procedure for notifying appropriate agencies if a hazardous materials release occurs.
4. A procedure for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release, including teams trained in decontamination, treatment, and transport of seriously contaminated patients.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Level III Regional Center** should have:

1. A plan for monitoring and documenting emergency care costs and for coordinating billing attempts with appropriate local or regional agencies.
2. A copy of *The EMS Billing Workbook* (available from the State EMS Office).
3. A plan to assure that services are financed so the consumer's ability to pay or economic status does not interfere with delivery of services at the time of need and does not affect the quality of health services provided.
4. A data collection system that documents trauma system provider costs.

B EQUAL CARE OPPORTUNITY

Every **Level III Regional Center** should:

1. Ensure that all patients in need of EMS are provided emergency care and transportation without regard to race, creed, color, sex, national origin, disability, or ability to pay.

C SERVICE AVAILABILITY

Every **Level III Regional Center** should have:

1. All residences with telephone access to an organized ambulance service in their community, at all times.
2. 911 Enhanced telephone access available.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Level III Regional Center** should:

1. Maintain training, personnel, and medical records as required by applicable state and federal laws.
2. Use ambulance run report forms which meet minimum state and local data requirements and provide an effective mechanism for local medical audit. There is a state minimum data set for run reports.
3. Have, for every hospital, a coordinated record system which incorporates:
 - The emergency department log,
 - Ambulance records
 - Other hospital records,
 - Trauma registry, and
 - A system allowing ambulances to pass on prehospital reports to clinics and hospitals.
4. Ensure that patient records covering the prehospital, emergency department, in-hospital and transfer phases of patient care are coordinated, enabling easy follow-up of a patient's condition and treatment.
5. Have a computerized information system for all run reports.
6. Have hospitals that offer an easily accessible discharge diagnosis data system, compatible with other hospitals in the state.
7. Ensure that emergency medical services provide summary data (the *Annual EMS Response Survey*) to subregional, regional, and state EMS agencies.

B REGIONAL & STATE COORDINATION

Every **Level II Regional Center** should:

1. Ensure that Trauma Registry data and other patient care information be collected at every acute care hospital and rehabilitation facility.
2. Ensure that a copy of the original prehospital run report information be provided to every acute care hospital receiving transported patients.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Level III Regional Center** should have:

1. A public education program to ensure that residents and visitors are familiar with the emergency care resources available to them, including 911 and accessing the local EMS system.

B EMERGENCY RESPONSE

Every **Level III Regional Center** should have:

1. At least one certified CPR instructor per 500 people.
2. At least one First Aid instructor per 500 people.
3. First Aid and CPR classes for all school students.
4. First Aid and CPR classes for community residents annually.
5. Access to training aids necessary for CPR and First Aid training.
6. At least 25 percent of all residents trained in CPR with information for trauma and hypothermic victims.
7. Posted procedures for accessing the local EMS system available to all school personnel for the efficient handling of injuries and other emergencies, including plans for the transport of critically injured or ill children to an appropriate facility.
8. Information available to public safety and local government personnel as to who to contact in case of a disaster.
9. A coordinator to schedule and oversee CPR and First Aid training in the community. This person should coordinate with the Regional EMS Office.

C CONSUMER PARTICIPATION

Every **Level III Regional Center** should:

1. Encourage consumer participation in EMS and trauma care planning and policy development.
2. Identify consumers with special interest in EMS and encourage their participation in appropriate events.

3. Maintain an injury prevention resource library (see **Component 14B**).
4. Have a local EMS or health council with consumer representation with EMS and trauma experience.
5. Encourage participation in EMS and trauma care planning and policy development by business and government leaders.

10 EVALUATION

A LOCAL REVIEW

Every **Level III Regional Center** should:

1. Establish a mechanism for annual evaluation of the overall EMS program in the community, including the trauma care system, in coordination with existing state and regional EMS evaluation procedures.
2. Have a physician review all emergency response runs to determine whether the care and transfer provided were appropriate and in accordance with local, regional, and state guidelines, questionable runs should be directed to the medical director (s).
3. Establish, for every hospital, a plan to meet the Joint Commission on Accreditation of Healthcare Organizations hospital standards, and the American College of Surgeons, Committee on Trauma standards for trauma centers.
4. For each state-certified ambulance service, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.
5. For each acute care hospital, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.

B REGIONAL REVIEW

Every **Level III Regional Center** should:

1. Coordinate a community EMS review using the recommendations contained in *Alaska EMS Goals* every three years.

11 DISASTER RESPONSE

A COORDINATION

Every **Level III Regional Center** should:

1. Maintain an integrated all-hazard plan.
2. Be included in regional/sub-area disaster plans. The plan should identify the most likely disaster threats, address these threats with action plans, define the roles and responsibilities of key public health and safety officials in the event of a disaster, and explain how regional and state disaster response resources are accessed.
3. Have disaster plans of local entities (airport, hospital, industries, military bases) incorporated into the community disaster plan.
4. Be familiar with the *Protocol for Emergency Medical Response for Mass Casualty Incidents* (available from the State EMS Office).
5. Have memoranda of agreement (MOAs) and memoranda of understanding (MOUs) with those agencies and providers that would be relied upon in emergency situations over-taxing routine procedures and resources. Agreements should include documentation of cost to allow reimbursement of expenses by the community and/or state.

B TRANSPORTATION

Every **Level III Regional Center** should have:

1. A plan for ensuring that patients can be evacuated from the community in a disaster
2. A system for retrieving equipment used in transports.
3. Identification of a secondary point for evacuation during a disaster.
4. A plan for staging, triage, and transport (including air medical) of multiple casualties.

C PERSONNEL

Every **Level III Regional Center** should have:

1. One member of the community appointed by the community leaders as the Local Disaster Preparedness Coordinator.
2. All prehospital personnel trained in the Incident Command System and familiar with the initial response to a disaster, and the ability to access additional personnel, equipment, supplies, and transportation resources.

3. Adequate community personnel trained and certified as Red Cross Shelter Managers.

D TRAINING

Every **Level III Regional Center** should have:

1. The Disaster Preparedness Coordinator complete the following FEMA Home Study Courses: *HS-1 Emergency Program Manager*, *HS-2 Emergency Management, USA*; *HS-5 Hazardous Materials: A Citizen's Orientation*; and *Professional Development Curriculum*.
2. Annual disaster exercises that include all the individuals and agencies most involved in decision making for and the response to a catastrophic event. The exercise should include the activation of the emergency operations center (EOC) and the EOC staff, and should be coordinated with regional EMS agencies.
3. All Community Shelter Managers complete a Shelter Systems Officer Course approved by the American Red Cross.

F FACILITIES & EQUIPMENT

Every **Level III Regional Center** should:

1. Have sufficient equipment to initiate a rapid and safe disaster response.
2. Have a plan for accessing additional equipment and supplies, through mutual aid agreements or direct requests to regional and state disaster agencies.
3. Have an established plan for EMS equipment resupply and return.
4. Evaluate and designate local buildings (schools, churches, community centers) as resources in the disaster plan for sheltering.
5. Identify potential triage, treatment, and transfer sites in disaster facilities.
6. Have pre-stocked disaster supplies available in case of mass casualty disasters, as recommended in **Section 737.2**.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTAINANCE

Every **Level III Regional Center** should:

1. Establish and maintain written mutual aid agreements between local emergency

- response agencies (e.g., EMS, fire, law enforcement, National Guard, Coast Guard, other military).
2. Have a state-certified emergency medical service with written mutual aid agreements with adjacent services for back-up support, patient transfer from service to service, equipment compatibility and retrieval.
 3. Have a highway first responder system with written mutual aid agreements between the emergency medical service and highway first responders who are not part of your emergency medical service.
 4. Have, for air medical evacuation more than 60 minutes from a hospital, written mutual aid agreements with certified air medical services or for helicopter or fixed-wing evacuation services. These would include:
 - Person (s) designated to make requests for service.
 - Procedures for accessing and requesting service.
 - Procedures for rendezvous.
 - Procedures for reimbursement of aircraft costs.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Level III Regional Center** should have:

1. For every emergency service:
 - A physician to serve as medical director for certified prehospital emergency care personnel, who agree to fulfill the responsibilities of a physician medical director as outlined in the state EMS regulations.
 - Capability for receiving direct physician supervision by phone or radio.
 - Emergency medical records reviewed by the Physician Medical Director or designee at least quarterly.
 - Written guidelines for prehospital patient care recommended by the medical director, in all emergency care areas.
 - A system for on-line medical direction of prehospital/interfacility providers. The system should include on-line physician advisor or designees qualifications and responsibilities and pre-established policies, procedures, and protocols for training, triage, treatment, transport, and operations.

- Identification of a mix of health care professionals designated to provide patient care services under medical direction for both the off-line and on-line medical direction systems.
- Strategies identified to strengthen and improve the current on-line and off-line medical direction systems.

B REGIONAL/STATE EMS SYSTEM MEDICAL DIRECTORS

Every **Level III Regional Center** should:

1. Know how to contact the State/Regional EMS Medical Directors for additional information on medical direction.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Level III Regional Center** should have:

1. An injury prevention plan that includes an assessment of community injury problems and objectives for public education and school health education.
- The **community assessment** should identify the major causes of injury within the area, methods of preventing or limiting the risk of injuries, and prevention resources.
- The **public education component** should provide activities to build public awareness about information on prevention, and details about accessing EMS resources.
- The **school health education** component should provide prevention and survival education for all school age children.
2. Ordinances and policies in place that decrease the risk of injuries to community residents and visitors.
3. Active injury prevention programs coordinated with other agencies to educate the public, change the environment, or develop ordinances to enhance safety. Examples include: boating and water safety, survival, home safety, fire prevention, helmet use, firearm safety, seat belts, child car seats (infants and children), and establishing safety policies regarding community sponsored events.

B TRAINING

Every **Level II Highway Sub-Regional Center** should have:

1. Local health, social services, education, and public safety personnel who are trained to provide injury prevention information as a part of routine duties. Information is available from the State EMS Office.
2. Injury prevention reading materials and videos available for self-study including the books, *Alaska Injury Prevention Plan* (available from the State EMS Office); *Injury Prevention, Meeting the Challenge*, and *The Injury Prevention Fact Book* in an accessible location such as public libraries.

SECTION 660
LEVEL IV
SMALL CITIES

OVERVIEW

This section contains the specific EMS recommendations for **Level IV Small Cities**. (See **Section 410** for the definition of a Level IV Small City.) The recommendations are organized in a fourteen-component framework described in **Section 420**.

The section is divided into two subsections. Communities classified as **Level IV Small Cities** are listed in **Section 661**. The recommendations are shown in **Section 662**. Refer to **Section 440-Prehospital/Hospital/Post-Hospital Index** if you need to know how these recommendations relate to the hospitals.

A **Level IV Small City** has a hospital with a 24-hour physician-staffed Emergency Department and a full continuum of care.

661 Community Listings

INTERIOR REGION

Fairbanks North Star Borough

SOUTHEAST REGION

Juneau
 Ketchikan

SOUTHERN REGION

Kenai Peninsula Sub-Area

Soldotna

Matanuska-Susitna Sub-Area

Palmer

Anchorage & Cook Inlet Sub-Area

Elmendorf Air Force Base (military)

662 Recommendations

I PERSONNEL

A ADMINISTRATION

Every **Level IV Small City** should have:

1. Municipal ordinance (s) that gives appropriate authority to the lead agency.
2. An EMS agency to coordinate EMS and trauma care activities.
3. A local EMS Council to coordinate EMS and trauma systems development, which meets at least quarterly to review responsibilities and coordinate activities.
4. Input into regional and state trauma and EMS plans.
5. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as needed.
6. Physician medical director (s) who assume the responsibilities outlined in state EMS regulations.
7. A plan for integrating local EMS and trauma activities with the EMS system components as well as other health care systems.
8. An annual plan of action with local EMS and trauma objectives based on quality improvement patient outcome data.
9. Persons trained in injury prevention.
10. A plan for financing the EMS and trauma system, which addresses at least:
 - EMS and trauma system administration and development,
 - Data collection,
 - Non-reimbursed costs, and
 - Under-compensated/uncompensated care.

B PROVIDERS

I Prehospital Emergency Providers

Every **Level IV Small City** should have:

1. An adequate number of EMT-Is, EMT-Is, EMT-IIIs, and Mobile Intensive Care Paramedics (MICPs):
 - Available to provide emergency medical care at all times;
 - Trained in the use of communications as appropriate for local resources; and

- With access to on-line physician medical consultation at all times.
2. At least two people in every high risk site, such as schools and remote occupational areas trained to the Emergency Trauma Technician level or preferably to the EMT-I level.
 3. All active EMTs in the emergency medical service trained in Prehospital Trauma Life Support or Basic Trauma Life Support, and extrication as appropriate.
 4. Appropriately equipped first responders with early defibrillation capability.
 5. All emergency medical dispatchers trained according to state or national standards.

II Air Medical Providers

Every **Level IV Small City** should have:

1. At least one certified medevac or ambulance service available to the community staffed by personnel trained to at least the EMT-III level, with DHSS-approved air medical escort and trauma training, available to accompany injured or ill patients during air transport to and from the hospital, or access to an equivalent service.
2. On those medevacs with a patient requiring advanced respiratory or cardiac support, an attendant who is a physician, mid-level provider, paramedic, RN or EMT-III with critical care skills, DHSS-approved air medical escort training, and trauma training.

III Acute Care Hospital Providers

Every **Level IV Small City** should have:

1. For all acute care hospitals providing emergency department services, at least:
 - 24-hour, 7-day-a-week in-house coverage of the emergency department by physicians specializing in emergency medicine, or with specialized emergency care training, including: Advanced Cardiac Life Support, Advanced Trauma Life Support, and Pediatric Advanced Life Support.
 - 24-hour, 7-day-a-week, in-house coverage of the emergency department by nurses trained in trauma nursing, and certified in Advanced Cardiac Life Support and Pediatric Advanced Life Support.
 - All hospital employees with patient care responsibility certified in CPR.

- A personal designated to coordinate organ/tissue harvesting and donation.
 - A medical or mental health social worker available for staff and patient consultation.
2. A hospital that has adequate personnel to meet the standards of an American College of Surgeons Level III Trauma Center.

IV Injury Prevention Specialists

Every **Level IV Small City** should have:

1. Designated personnel to coordinate and to promote community injury prevention.

V Public Safety Personnel

Every **Level IV Small City** should have:

1. All search and rescue personnel trained to at least the Emergency Trauma Technician level.
2. All law enforcement officers and firefighters trained to at least the Emergency Trauma Technician level.

2 TRAINING

A STANDARDS

Every **Level IV Small City** should have:

1. Basic and advanced training programs for all levels of prehospital and clinic care providers including pediatric and trauma care, and use of automated external defibrillators.
2. All emergency medical services personnel trained to applicable local, state, and national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.
3. For all emergency responders in the community, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.
4. Access to state approved emergency medical dispatcher training programs.
5. An ongoing program for physicians referring patients to familiarize these physicians with critical care guidelines and patient transfer procedures of specialty care referral centers.

6. Ongoing programs to familiarize emergency staff with local social and health resource agencies (e.g., mental health, crisis response, substance abuse, family violence agencies, poison control, disaster coordination, etc.) and the standing orders and field techniques of the prehospital emergency care providers in the area.
7. An ongoing program of in-service education for all nurses with emergency department or critical care responsibilities on emergency or critical care nursing skills.

B PREHOSPITAL TRAINING PERSONNEL

Every **Level IV Small City** should have:

1. First Aid and CPR Instructors.
2. At least four active EMT-I Instructors.
3. At least two active EMT-III Instructor.
4. At least one DHSS-approved Air Medevac Instructor.
5. A designated EMT Training Coordinator.
6. At least one instructor for each of the following: ACLS, BTLIS/PHTLS, ATLS, PALS, and extrication.

C HOSPITAL TRAINING PERSONNEL

Every **Level IV Small City** should have:

1. A physician willing to assume medical direction responsibilities for BTLIS.
2. A physician willing to assume medical director responsibilities for an ACLS.
3. A physician willing to assume medical direction responsibilities for PALS.
4. Hospital inservice personnel (training director).

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Level IV Small City** should have:

1. Local emergency communications capability, including:
 - First Responder access to the next level of emergency care providers.
 - Direct two-way communications between emergency care providers, the designated receiving facility, and their medical director (s).

- Two-way ambulance-hospital communications with tone alert.
 - Ambulances with mobile radio access to on-duty law enforcement officers.
 - Two-way communications among search and rescue personnel.
 - Two-way mobile radio communications with adjacent ambulance services.
2. For every acute care hospital:
 - Two-way communications with health care providers in the outlying communities it serves.
 - Capability to page on-call staff outside the hospital.
 - A code to notify other hospital staff of an emergency situation.
 - Capability of two-way, air-ground communications with all air services carrying patients to the hospital.
 - A back-up communications system or procedures for communications during power failures and disasters.
 - Communications equipment consolidated into one area for constant monitoring.
 - Orientation and in-service training in use of communications equipment.
 3. Certified emergency medical dispatchers capable of dispatching certified emergency personnel and directing bystander care at all times.
 4. An up-to-date inventory of communications equipment used in the EMS system.
 5. A local communications plan that addresses frequency compatibility between all emergency agencies, maintenance, and back-up procedures, and ensures compliance with current and planned FCC requirements.
 6. New equipment procurements that fit the local and regional communications plans and are coordinated with the regional office.
 7. One telephone number, well-advertised and toll free, preferably 911 Enhanced, to access fire, law enforcement, and emergency medical services. An alternate procedure should be arranged in case of 911 Enhanced system failure.

B STATE SYSTEM

Every **Level IV Small City** should:

1. Have personnel who are familiar with all applicable EMS communications plans and how to obtain additional information about them.

2. Ensure that proposed communications resources are compatible with existing and anticipated local, regional, and state communications plans and systems.

C BACK-UP & RELIABILITY

Every **Level IV Small City** should have:

1. A weekly test of the EMS communications system and a log which records the communications system's reliability.
2. Predetermined procedures for maintaining all emergency communications equipment.
3. A backup system for direct two-way communications between designated emergency care providers their designated receiving facilities, and their medical director (s).
4. A procedure for annual review and evaluation of the local communications plan.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

Every **Level IV Small City** should have:

1. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency medical services and facilities.
2. Local triage and transfer protocols.
3. An organized quality improvement program for all air medical and ground ambulance services.

B RESOURCES

I Ground Ambulances

Every **Level IV Small City** should have:

1. A state-certified Advanced Life Support (ALS) service with EMT-IIIs or Mobile Intensive Care Paramedics providing 24-hour, 7 day-a-week coverage.
2. Ground ambulance services with a configuration and staffing to assure:
 - MICPs or EMT-IIIs able to arrive at the scene within 8 minutes of a call for 90 percent of emergencies occurring within major populated areas.

- First responders with Basic Life Support training and early defibrillation on the scene within 4 minutes of call for 90 percent of emergencies occurring within major population areas.

II Air Medical Services

Every **Level IV Small City** should have:

1. Access, within a reasonable period of time, to a state-certified air medical service for transport and for interhospital transfer when appropriate. Alternate transport should be planned for when these resources are unavailable or weather hinders their use.
2. At least one hospital with a helicopter landing area near the emergency department.
3. Within 15 minutes of each hospital, a landing area with lighting for fixed-wing aircraft.
4. A current schedule of air carriers serving the community, and a list of their requirements for boarding stretcher patients or other emergency patients.
5. A list of certified air medical services and air taxis for bringing in patients from outlying communities, with information on how they may be contacted, when they are available, and each aircraft's transport capabilities.
6. For every acute care hospital:
 - One person on every shift designated as a Transfer Coordinator, responsible for knowing procedures and protocols of the receiving facility, and air schedules; and arranging transfer logistics.
 - For the person (s) assigned to coordinate transfers, a checklist of actions required to prepare any patient for transfer.
 - A directory of specific capabilities of those critical care facilities available to receive transferred patients.
 - Available at all times, prepared kits of basic equipment, basic life support, adult, pediatric and specialty kits as recommended in **Section 733-Air Transport**.
 - A means to support respiration, control airways and provide high levels of oxygen during transfer to another facility.
 - On every hospital-to-hospital transfer, a qualified attendant as prescribed by the physician in charge.
 - On every hospital-to-hospital transfer, a record of the patient's pre-hospital

condition, as well as initial condition and treatment in hospital.

- Specific procedures established with referring hospitals/health centers and receiving hospitals for preparation and transport of patients in each critical care area.

III Hospitals

Every **Level IV Small City** should have:

1. An acute care hospital with:
 - A list of certified medevac services available to the community.
 - A directory of facilities with critical care capabilities available to receive transferred patients.
 - Specific procedures established between referring hospitals and accepting hospitals for preparation and transport of patients in each critical care category.
 - For the person (s) assigned to coordinate transfers, a checklist of actions required to prepare any patient for transfer.
 - For every hospital-to-hospital transfer, a record of patient's prehospital condition, as well as initial condition and treatment in hospital.
 - On all hospital-to-hospital transfers, a qualified medical attendant as prescribed by the physician in charge.
 - A means to provide ALS procedures during transfer to another facility.
 - A list of local and regional rehabilitation facilities.

C PROTOCOLS

Every **Level IV Small City** should have:

1. Protocols for a prehospital triage system for identifying major trauma and appropriate destinations for all injured patients.
2. Transport protocols based on patient need and hospital resources, including specialty needs (e.g., pediatrics, critical care, burns, spinal cord injury).
3. Guidelines for the rapid interfacility transfer of the major trauma patient to the appropriate tertiary trauma care center.
4. An on-call schedule of consultants utilized in each critical care area.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

I Hospitals

Every **Level IV Small City** should have:

1. For those hospitals taking care of trauma care patients, certification by the American College of Surgeons as a Level III Trauma Center.
2. At every hospital:
 - Lab, blood gas, and X-ray technicians in-house, 24 hours-a-day.
 - Adult, child, and infant resuscitation equipment, and a plan for its maintenance.
 - An area equipped to receive a cardiac patient, with oxygen, monitor/defibrillator, oral suction, and a resuscitation crash cart; and a system to check equipment every day.
 - An emergency power source for care of critical patients in the event of power failure.
 - A system for returning equipment received with patients from outlying communities; and retrieving equipment sent with patients to other facilities.
 - Agreements with other hospitals in the community or region defining how resources should be shared during situations that overtax their facilities such as mass casualty disasters.
 - A security room or a procedure for keeping combative patients under observation, and to help ensure safety of staff and other patients.
 - A procedure and alarm system for protection of staff in the event of a behavioral emergency.
3. 24-hour, 7-day-a-week physician in-house emergency department coverage including:
 - Protocols for notification and response of physicians and trauma team before arrival of the patient.
4. For every Acute Care Hospital, the capabilities to:
 - Perform endotracheal intubation and cricothyrotomies.
 - Administer oxygen and monitor oxygen concentrations.
 - Support respiration artificially, both manually and mechanically through a respirator.

- Perform pleural decompression by needle thoracentesis using flutter valves, and by chest tube insertions.
- Provide Advanced Cardiac Life Support and Pediatric Advanced Life Support according to the standards of the American Heart Association.
- Use an external cardiac pacemaker on an emergency basis and have patient transfer procedures to a cardiac center.
- Stop continuous bleeding with pressure and instruments.
- Insert peripheral and central IVs on adult and pediatric patients.
- Monitor fluid resuscitation, including Foley catheterization.
- Immobilize a spinal injury until evaluation can be completed.
- Perform complex x-ray examination.
- Perform gastric lavage.
- Perform peritoneal dialysis.
- Modify a patient's core temperature.
- Splint extremities definitively.
- Debride wounds of the extremities.
- Care for complicated perinatal cases when transfer is impractical or impossible, including emergency Cesarean section within one hour on a 24-hour basis, and fetal monitoring.
- 5. All hospitals with surgical capabilities and a general surgeon should have the capability to:
 - Perform emergency intracranial decompression with neurosurgical consultation.
 - Perform emergency abdominal, chest, and vascular surgery.

II Specialty Care Centers

A – Trauma Care

Every **Level IV Small City** should have:

1. At least one hospital capable of optimum treatment of multiple injuries, according to American College of Surgeons Level III Trauma Center Standards.
2. For all hospitals accepting patients from other hospitals for treatment of multiple injuries:
 - Surgical specialists, when available, using a multi-disciplinary approach to multiple injuries.

- Personnel for X-ray and laboratory in the building 24 hours a day.
- An intensive care unit with staff trained in critical care.
- Respiratory therapy personnel in the building or on a 20-minute call back basis.
- Sophisticated visual imaging diagnostic equipment.

B – Cardiac Emergency Care

Every **Level IV Small City** should have:

1. An acute care hospital with the ability to identify cardiac disease, institute initial treatment, and refer to cardiac specialty centers when appropriate.

C – Head, Neck & Spinal Injury Care

Every **Level IV Small City** should have:

1. Hospitals caring for patients with head and spinal injuries should have:
 - 24-hour availability of an orthopedist.
 - For spinal injuries only: beds and equipment for the management of injured spine patients for up to one week, including surgical management with neurological consultation if indicated; nursing staff trained in care and transporting of patients to a spinal cord center; physical therapy; and specialized neuro-radiological capability.
 - Identified spinal cord injury centers to which they may transfer patients for continued rehabilitation.
 - Written guidelines for the treatment and transfer of head and spinal injury patients, for facilities sending in patients.
 - The capability to perform emergency intracranial decompression with neurosurgical consultation.

D – Thermal Injury Care

Every **Level IV Small City** should have:

1. For those hospitals accepting patients with moderate to major thermal injuries:
 - Physicians and nurses with thermal injury training; respiratory therapist; physical therapist with splinting experience; nutritionist; medical social worker; and prosthetics consultation.

- Lab and X-ray personnel in building 24 hours a day.
- A designated care area providing for the patient's isolation needs, with hydrotherapy in close proximity.
- Equipment for a thermal controlled environment.
- Criteria for identifying patients requiring transfer, and protocols for transferring them to a recognized thermal injury center for care and rehabilitation, based on American Burn Association standards and the thermal injury center to which they transfer.
- Written protocols on the treatment of thermal injury patients, for facilities sending in patients.

E – Perinatal Emergency Care

Every **Level IV Small City** should have:

1. For those hospitals accepting patients for acute perinatal and neonatal care:
 - A designated neonatal care team, including a pediatrician, nurses with special neonatal training, respiratory therapist, nutritionist, medical social worker, and biomedical engineer.
 - Diagnostic lab services to assess fetal and maternal well-being, including diagnostic ultrasound, available 24 hours a day.
 - 24-hour capability to provide oxygen therapy for small and ill infants, and the ability to monitor inspired oxygen concentration and arterial blood gases.
 - Capability to continuously monitor vital functions such as heart rate, blood pressure, respiration and temperature.
 - Capability to use assisted ventilation.
 - Criteria established by the neonatal care team to identify which infants can be cared for in their facility, and which require transfer to higher level neonatal center.
 - For referring hospitals, information on their capabilities and written protocols on stabilization and transfer of infants to the most appropriate neonatal care facility.

F – Poisoning Care

Every **Level IV Small City** should have:

1. Written protocols on how to access a Poison Information Center on a 24-hour basis or a

local poison information center that includes:

- 24-hour in-house staff with specialized training in poison control management, under the direction of a physician.
- Information and consultation for hospitals, physicians and health professionals throughout the service area via a toll-free number.
- Direct access to advice and information by the public in the surrounding service area via a toll-free, well-advertised number.
- Access to a reference toxicological laboratory service.
- Established communications links and protocols for working with higher level poison control centers.
- Poison information that is easily retrievable and updated at least quarterly.
- A mechanism for transferring data to a statewide data collecting agency on poisoning and overdose incidence and common agents.
- An ongoing program of general information for professionals and the public on the center's capabilities, appropriate use of its resources, access, poison prevention and appropriate emergency action.

G – Behavioral Emergency Care

Every **Level IV Small City** should have:

1. An identified facility to which patients with severe behavioral problems are transferred and protocols for their transfer.
2. Transfer agreements between hospitals and the facility receiving patients with severe behavioral problems, which specify the agency which will provide transport personnel.

H – Pediatric Emergency Care

Every **Level IV Small City** should have:

1. For all hospitals, the capability of initiating resuscitation of the injured child with the capability to treat or transport the most severely injured children. This requires medical specialists appropriately credentialed to provide pediatric care, equipment necessary for resuscitation and transport of injured infants and children, and a designated emergency department area

with appropriately trained staff and readily available pediatric equipment.

B EQUIPMENT & SUPPLIES

Every **Level IV Small City** should have:

1. Trauma kits readily available for first responders, equipped as recommended in **Section 731**.
2. One extrication kit for first responders, equipped as recommended in **Section 731**.
3. Equipment and supplies appropriate for training level of EMS providers.
4. Equipment and supplies for emergency care for both pediatric and adult patients as recommended in **Section 732**.
5. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Level IV Small City** should have:

1. Coordination between public safety agencies with mutual aid agreements.

B ENVIRONMENTAL RESPONSE

Every **Level IV Small City** should have:

1. A community plan for hazardous materials response which covers the topics in *Managing Hazardous Materials Incidents, Volume I-II* (available from the State EMS Office).
2. Personnel trained in the recognition of, and immediate response to hazardous materials emergencies. Core personnel should be trained to the hazmat technician level.
3. A procedure for notifying appropriate agencies if a hazardous materials release occurs.
4. A procedure for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release, including teams trained in decontamination, treatment, and transport of seriously contaminated patients.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Level IV Small City** should have:

1. A plan for monitoring and documenting emergency care costs and for coordinating billing attempts with appropriate local or regional agencies.
2. A plan to assure that services are financed so the consumer's ability to pay or economic status does not interfere with delivery of services at the time of need and does not affect the quality of health services provided.
3. A data collection system that documents trauma system provider costs.

B EQUAL CARE OPPORTUNITY

Every **Level IV Small City** should:

1. Ensure that all patients are provided emergency care and transportation without regard to race, creed, color, sex, national origin, disability, or ability to pay.

C SERVICE AVAILABILITY

Every **Level IV Small City** should have:

1. All residences with telephone access to an organized ambulance service in their community, at all times.
2. 911 Enhanced telephone access available.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Level IV Small City** should:

1. Maintain training, personnel, and medical records as required by applicable state and federal laws.
2. Use ambulance run report forms which meet minimum state and local data requirements and provide an effective mechanism for local medical audit. There is a state minimum data set for run reports.
3. Have, for every hospital, a coordinated record system which incorporates:
 - The emergency department log,
 - Ambulance records

- Other hospital records,
 - Trauma registry, and
 - A system allowing ambulances to pass on prehospital reports to clinics and hospitals.
4. Ensure that patient records covering the prehospital, emergency department, in-hospital and transfer phases of patient care are coordinated, enabling easy follow-up of a patient's condition and treatment.
 5. Have a computerized information system for all run reports.
 6. Have hospitals that offer an easily accessible discharge diagnosis data system, compatible with other hospitals in the state.
 7. Ensure that emergency medical services provide summary data (the *Annual EMS Response Survey*) to subregional, regional, and state EMS agencies.

B REGIONAL & STATE COORDINATION

Every **Level II Regional Center** should:

1. Ensure that Trauma Registry data and other patient care information be collected at every acute care hospital and rehabilitation facility.
2. Ensure that a copy of the original prehospital run report information be provided to every acute care hospital receiving transported patients.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Level IV Small City** should have:

1. A public education program to ensure that residents and visitors are familiar with the emergency care resources available to them, including 911 and accessing the local EMS system.

B EMERGENCY RESPONSE

Every **Level IV Small City** should have:

1. At least one certified CPR instructor per 500 people.
2. At least one First Aid instructor per 500 people.

3. First Aid and CPR classes for all school students.
4. First Aid and CPR classes for community residents annually.
5. Access to training aids necessary for CPR and First Aid training.
6. At least 25 percent of all residents trained in CPR with information for trauma and hypothermic victims.
7. Posted procedures for accessing the local EMS system available to all school personnel for the efficient handling of injuries and other emergencies, including plans for the transport of critically injured or ill children to an appropriate facility.
8. Information available to public safety and local government personnel as to who to contact in case of a disaster.
9. A coordinator to schedule and oversee CPR and First Aid training in the community. This person should coordinate with the Regional EMS Office.

C CONSUMER PARTICIPATION

Every **Level IV Small City** should:

1. Encourage consumer participation in EMS and trauma care planning and policy development.
2. Identify consumers with special interest in EMS and encourage their participation in appropriate events.
3. Maintain a library of injury prevention resources (see **Component 14B**).
4. Have a local EMS or health council with consumer representation with EMS and trauma experience.
5. Encourage participation in EMS and trauma care planning and policy development by business and government leaders.

10 EVALUATION

A LOCAL REVIEW

Every **Level IV Small City** should:

1. Establish a mechanism for annual evaluation of the overall EMS program in the community, including the trauma care system, in coordination with existing state and regional EMS evaluation procedures.
2. Have a physician medical director review all emergency response runs to determine

whether the care and transfer provided were appropriate and in accordance with local, regional, and state guidelines.

3. Establish, for every hospital, a plan to meet the Joint Commission on Accreditation of Healthcare Organizations hospital standards, and the American College of Surgeons, Committee on Trauma standards for trauma centers.
4. For each state-certified ambulance service, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.
5. For each acute care hospital, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.

B REGIONAL REVIEW

Every **Level IV Small City** should:

1. Coordinate a community EMS review using the recommendations contained in *Alaska EMS Goals* every three years.

C STATE REVIEW

Every **Level IV Small City** should:

1. Participate in the state patient care review process.

11 DISASTER RESPONSE

A COORDINATION

Every **Level IV Small City** should:

1. Maintain an integrated all-hazard plan.
2. Be included in a state/regional/sub-area disaster plan. The plan should identify the most likely disaster threats, address these threats with action plans, define the roles and responsibilities of key public health and safety officials in the event of a disaster, and explain how regional and state disaster response resources are accessed.
3. Have disaster plans of local entities (airport, hospital, industries, military bases) incorporated into the community disaster plan.
4. Be familiar with the *Protocol for Emergency Medical Response for Mass Casualty*

Incidents (available from the State EMS Office).

5. Have memoranda of agreement (MOAs) and memoranda of understanding (MOUs) with those agencies and providers that would be relied upon in emergency situations over-taxing routine procedures and resources. Agreements should include documentation of cost to allow reimbursement of expenses by the community and/or state.

B TRANSPORTATION

Every **Level IV Small City** should have:

1. A plan for ensuring that patients can be evacuated from the community in a disaster
2. A system for retrieving equipment used in transports.
3. Identification of a secondary point for evacuation during a disaster.
4. A plan for staging, triage, and transport (including air medical) of multiple casualties.

C PERSONNEL

Every **Level IV Small City** should have:

1. A full-time Disaster Preparedness Coordinator.
2. All prehospital personnel trained in the Incident Command System and familiar with the initial response to a disaster, and the ability to access additional personnel, equipment, supplies, and transportation resources.
3. Adequate community personnel trained and certified as Red Cross Shelter Managers.

D TRAINING

Every **Level IV Small City** should have:

1. The Disaster Preparedness Coordinator complete the following FEMA Home Study Courses: *HS-1 Emergency Program Manager*, *HS-2 Emergency Management, USA*; *HS-5 Hazardous Materials: A Citizen's Orientation*; and *Professional Development Curriculum*.
2. Annual disaster exercises that include all the individuals and agencies most involved in decision making for and the response to a catastrophic event. The exercise should

include the activation of the emergency operations center (EOC) and the EOC staff, and should be coordinated with regional EMS agencies.

3. All Community Shelter Managers complete a Shelter Systems Officer Course approved by the American Red Cross.

F FACILITIES & EQUIPMENT

Every **Level IV Small City** should:

1. Have sufficient equipment to initiate a rapid and safe disaster response.
2. Have a plan for accessing additional equipment and supplies, through mutual aid agreements or direct requests to regional and state disaster agencies.
3. Have an established plan for EMS equipment resupply and return.
4. Evaluate and designate local buildings (schools, churches, community centers) as resources in the disaster plan for sheltering.
5. Identify potential triage, treatment, and transfer sites in disaster facilities.
6. Have pre-stocked disaster supplies available in case of mass casualty disasters, as recommended in **Section 737**.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTAINANCE

Every **Level IV Small City** should:

1. Establish and maintain written mutual aid agreements between local emergency response agencies (e.g., EMS, fire, law enforcement, National Guard, Coast Guard, other military).
2. Have a state-certified emergency medical service with written mutual aid agreements with adjacent services for back-up support, patient transfer from service to service, equipment compatibility and retrieval.
3. Have a highway first responder system with written mutual aid agreements between the emergency medical service and highway first responders who are not part of your emergency medical service.
4. Have, for air medical evacuation more than 60 minutes from a hospital, written mutual aid agreements with certified air medical services or for helicopter or fixed-wing evacuation services. These would include:

- Person (s) designated to make requests for service.
- Procedures for accessing and requesting service.
- Procedures for rendezvous.
- Procedures for reimbursement of aircraft costs.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Level IV Small City** should have:

1. For every emergency service:
 - A physician to serve as medical director for certified prehospital emergency care personnel, who agree to fulfill the responsibilities of a physician medical director as outlined in the state EMS regulations.
 - Capability for receiving direct physician supervision by phone or radio.
 - Emergency medical records reviewed by the Physician Medical Director or designee at least monthly.
 - Written guidelines for prehospital patient care recommended by the medical director, in all emergency care areas.
 - A system for on-line medical direction of prehospital/interfacility providers. The system should include on-line physician advisor or designees qualifications and responsibilities and pre-established policies, procedures, and protocols for training, triage, treatment, transport, and operations.
 - Identification of a mix of health care professionals designated to provide patient care services under medical direction for both the off-line and on-line medical direction systems.
 - Strategies identified to strengthen and improve the current on-line and off-line medical direction systems.

B REGIONAL/STATE EMS SYSTEM MEDICAL DIRECTORS

Every **Level IV Small City** should:

1. Know how to contact the State/Regional EMS Medical Directors for additional information on medical direction.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Level IV Small City** should have:

1. An injury prevention plan that includes an assessment of community injury problems and objectives for public education and school health education.
 - The **community assessment** should identify the major causes of injury within the area, methods of preventing or limiting the risk of injuries, and prevention resources.
 - The **public education component** should provide activities to build public awareness about information on prevention, and details about accessing EMS resources.
 - The **school health education** component should provide prevention and survival education for all school age children.
2. Ordinances and policies in place that decrease the risk of injuries to community residents and visitors.
3. Active injury prevention programs coordinated with other agencies to educate the public, change the environment, or develop ordinances to enhance safety. Examples include: boating and water safety, survival, home safety, fire prevention, helmet use, firearm safety, seat belts, child car seats (infants and children), and establishing safety policies regarding community sponsored events.

B TRAINING

Every **Level IV Small City** should have:

1. Local health, social services, education, and public safety personnel who are trained to provide injury prevention information as a part of routine duties. Information is available from the State EMS Office.
2. Injury prevention reading materials and videos available for self-study including the books, *Alaska Injury Prevention Plan* (available from the State EMS Office); *Injury Prevention, Meeting the Challenge*, and *The Injury Prevention Fact Book* in an accessible location such as public libraries.

SECTION 670
LEVEL V
URBAN CENTERS

OVERVIEW

This section contains the specific EMS recommendations for **Level V Urban Centers**. (See **Section 410** for the definition of a Level V Urban Center.) The recommendations are organized in a fourteen-component framework described in **Section 420**.

The section is divided into two subsections. Communities classified as **Level V Urban Centers** are listed in **Section 671**. The recommendations are shown in **Section 672**. Refer to **Section 440-Prehospital/Hospital/Post-Hospital Index** if you need to know how these recommendations relate to the hospitals.

A **Level V Urban Center** has specialized medical and rehabilitation services for high and low incidence problems. These communities also have resources that other levels of community will need access to, such as instructors for prehospital training programs.

671 Community Listings

SOUTHERN REGION

Anchorage & Cook Inlet Sub-Area

Anchorage

672 Recommendations

I PERSONNEL

A ADMINISTRATION

Every **Level V Urban Center** should have:

1. Municipal ordinance (s) that gives appropriate authority to the lead agency.
2. A lead agency to coordinate EMS and trauma care activities.
3. A local EMS Council to coordinate EMS and trauma systems development, which meets at least quarterly to review responsibilities and activities. EMS Council meetings should be documented.
4. Input into regional and state trauma and EMS plans.
5. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as indicated.
6. Physician medical director (s) who assume the responsibilities outlined in state EMS regulations.
7. A plan for integrating local EMS and trauma activities with the EMS system components as well as other health care systems.
8. An annual plan of action with local EMS and trauma objectives based on quality improvement patient outcome data.
9. Persons trained in injury prevention.
10. A plan for financing the EMS and trauma system, which addresses at least:
 - EMS and trauma system administration and development,
 - Data collection,
 - Non-reimbursed costs, and
 - Under-compensated/uncompensated care.

B PROVIDERS

I Prehospital Emergency Providers

Every **Level V Urban Center** should have:

1. An adequate number of EMT-Is, EMT-IIIs, EMT-IIIs, and Mobile Intensive Care Paramedics (MICPs):
 - Available to provide emergency medical care at all times;

- Trained in the use of communications as appropriate for local resources; and
 - With access to on-line physician medical consultation at all times.
2. At least two people in every high risk site, such as schools and remote occupational areas trained to the Emergency Trauma Technician level or preferably to the EMT-I level.
 3. All active EMTs in the emergency medical service trained in Advanced Cardiac Life Support, Prehospital Trauma Life Support or Basic Trauma Life Support; and in Pediatric Advanced Life Support and extrication as appropriate.
 4. Appropriately equipped first responders with early defibrillation capability.
 5. All emergency medical dispatchers trained according to state or national standards.

II Air Medical Providers

Every **Level V Urban Center** should have:

1. At least one certified air ambulance service in the community staffed by personnel trained to at least the Mobile Intensive Care Paramedic (MICP) or RN level, with air medical training, available to accompany injured or ill patients during air transport to and from the hospital.
2. On those medevacs with a patient requiring advanced respiratory or cardiac support, an attendant who is a physician, mid-level provider, paramedic, or RN with critical care skills, DHSS-approved air medical escort training, and trauma training.

III Acute Care Hospital Providers

Every **Level V Urban Center** should have:

1. For all acute care hospitals providing emergency department services, at least:
 - 24-hour, 7-day-a-week in-house coverage of the emergency department by physicians specializing in emergency medicine, or with specialized emergency care training, including: Advanced Cardiac Life Support, Advanced Trauma Life Support, and Pediatric Advanced Life Support.
 - 24-hour, 7-day-a-week, in-house coverage of the emergency department by nurses trained in trauma nursing, and certified in

- Advanced Cardiac Life Support and Pediatric Advanced Life Support.
 - All hospital employees with patient care responsibility certified in CPR.
 - A person designated to coordinate organ/tissue harvesting and donation.
 - A medical or mental health social worker available for staff and patient consultation.
2. A hospital that has adequate personnel to meet the standards of an **American College of Surgeons Level II Trauma Center**.

IV Injury Prevention Specialists

Every **Level V Urban Center** should have:

1. Designated personnel to coordinate and to promote community injury prevention.

V Public Safety Personnel

Every **Level V Urban Center** should have:

1. All search and rescue personnel trained to at least the Emergency Trauma Technician level.
2. All law enforcement officers and firefighters trained to at least the Emergency Trauma Technician level.

2 TRAINING

A STANDARDS

Every **Level V Urban Center** should have:

1. Basic and advanced training programs for all levels of prehospital and clinic care providers including pediatric and trauma care, and use of automated external defibrillators.
2. All emergency medical services personnel trained to applicable local, state, and national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.
3. For all emergency responders in the community, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.
4. Access to state approved emergency medical dispatcher training programs.

5. An ongoing program for physicians referring patients to familiarize these physicians with critical care guidelines and patient transfer procedures of specialty care referral centers.
6. Ongoing programs to familiarize emergency staff with local social and health resource agencies (e.g., mental health, crisis response, substance abuse, family violence agencies, poison control, disaster coordination, etc.) and the standing orders and field techniques of the prehospital emergency care providers in the area.
7. An ongoing program of in-service education for all nurses with emergency department or critical care responsibilities on emergency or critical care nursing skills.
8. Periodic Mobile Intensive Care Paramedic courses sufficient to maintain MICP staffing levels and to deal with increases in populations and service area sizes.

B PREHOSPITAL TRAINING PERSONNEL

Every **Level V Urban Center** should have:

1. First Aid and CPR Instructors.
2. At least ten active EMT-I Instructors.
3. At least five active EMT-III Instructor.
4. Three DHSS-approved Air Medevac Instructors.
5. A designated EMT Training Coordinator.
6. At least one instructor for each of the following: ACLS, BTLSPHTLS, ATLS, PALS, and extrication.
7. At least one MICP course coordinator certified in accordance with applicable EMS regulations.

C HOSPITAL TRAINING PERSONNEL

Every **Level V Urban Center** should have:

1. A physician willing to assume medical direction responsibilities for BTLSPHTLS training.
2. A physician willing to assume medical director responsibilities for an ACLS.
3. A physician willing to assume medical director responsibilities for PALS.
4. A physician willing to assume medical director responsibilities for ATLS.
5. Hospital inservice personnel (training director).

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Level V Urban Center** should have:

1. Local emergency communications capability, including:
 - First Responder access to the next level of emergency care providers.
 - Direct two-way communications between emergency care providers, the designated receiving facility, and their physician supervisor (s).
 - Two-way ambulance-hospital communications with tone alert.
 - Ambulances with mobile radio access to on-duty law enforcement officers.
 - Two-way communications among search and rescue personnel.
 - Two-way mobile radio communications with adjacent ambulance services.
2. For every acute care hospital:
 - Two-way communications with health care providers in the outlying communities it serves.
 - Capability to page on-call staff outside the hospital.
 - A code to notify other hospital staff of an emergency situation.
 - Capability of two-way, air-ground communications with all air services carrying patients to the hospital.
 - A back-up communications system or procedures for communications during power failures and disasters.
 - Communications equipment consolidated into one area, for constant monitoring.
 - Orientation and in-service training in use of communications equipment.
3. Certified emergency medical dispatchers capable of dispatching certified emergency personnel and directing bystander care at all times.
4. An up-to-date inventory of communications equipment used in the EMS system.
5. A local communications plan that addresses frequency compatibility between all emergency agencies, maintenance, and back-up procedures, and ensures compliance with current and planned FCC requirements.
6. New equipment procurements that fit the local and regional communications plans

and are coordinated with the regional EMS office and the state.

7. One telephone number, well-advertised and toll free, preferably 911 Enhanced, to access fire, law enforcement, and emergency medical services. An alternate procedure should be arranged in case of 911 Enhanced system failure.

B STATE SYSTEM

Every **Level V Urban Center** should:

1. Have personnel who are familiar with all applicable EMS communications plans and how to obtain copies and/or additional information.
2. Ensure that proposed communications resources are compatible with existing and anticipated local, regional, and state communications plans and systems.

C BACK-UP & RELIABILITY

Every **Level V Urban Center** should have:

1. A weekly test of the EMS communications system and a log which records the communications system's reliability.
2. Predetermined procedures for maintaining all emergency communications equipment.
3. A backup system for direct two-way communications between designated emergency care providers and the hospital to which they refer patients, and with their medical director (s).
4. A procedure for annual review and evaluation of the local communications plan.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

Every **Level V Urban Center** should have:

1. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency medical services and facilities.
2. Local triage and transfer protocols.
3. An organized quality improvement program for all air medical and ground ambulance services.

B RESOURCES

I Ground Ambulances

Every **Level V Urban Center** should have:

1. A state-certified Advanced Life Support (ALS) service with full-time Mobile Intensive Care Paramedics providing 24-hour, 7 day-a-week coverage.
2. Ground ambulance services with a configuration and staffing to assure:
 - MICPs able to arrive at the scene within 8 minutes of a call for 90 percent of emergencies occurring within major populated areas.
 - First responders with Basic Life Support training and early defibrillation on the scene within 4 minutes of call for 90 percent of emergencies occurring within major population areas.

II Air Medical Services

Every **Level V Urban Center** should have:

1. At least one state-certified air medical service in the community.
2. At least one hospital with a helicopter landing area near the emergency department.
3. Within 15 minutes of each hospital, a landing area with lighting for fixed-wing aircraft.
4. For every acute care hospital:
 - One person on every shift designated as a Transfer Coordinator, responsible for knowing procedures and protocols of the receiving facility, and air schedules; and arranging transfer logistics.
 - For the person (s) assigned to coordinate transfers, a checklist of actions required to prepare any patient for transfer.
 - A directory of specific capabilities of those critical care facilities available to receive transferred patients.
 - Available at all times, prepared kits of basic equipment, basic life support, adult, pediatric and specialty kits as recommended in **Section 733**.
 - A means to support respiration, control airways and provide high levels of oxygen during transfer to another facility.
 - On every hospital-to-hospital transfer, a qualified attendant as prescribed by the physician in charge.

- On every hospital-to-hospital transfer, a record of the patient's pre-hospital condition, as well as initial condition and treatment in hospital.
- Specific procedures established with referring hospitals/health centers and receiving hospitals for preparation and transport of patients in each critical care area.

III Hospitals

Every **Level V Urban Center** should have:

1. An acute care hospital with:
 - A list of certified medevac services available to the community.
 - A directory of facilities with critical care capabilities available to receive transferred patients.
 - Specific procedures established between referring hospital and accepting hospital for preparation and transport of patients in each critical care category.
 - For the person (s) assigned to coordinate transfers, a checklist of actions required to prepare any patient for transfer.
 - For every hospital-to-hospital transfer, a record of patient's prehospital condition, as well as initial condition and treatment in hospital.
 - On all hospital-to-hospital transfers, a qualified medical attendant as prescribed by the physician in charge.
 - A means to provide ALS procedures during transfer to another facility.
 - A list of local and regional rehabilitation facilities.

C PROTOCOLS

Every **Level V Urban Center** should have:

1. Protocols for a prehospital triage system for identifying major trauma and appropriate destinations for all injured patients.
2. Transport protocols based on patient need and hospital resources, including specialty needs (e.g., pediatrics, critical care, burns, spinal cord injury).
3. Guidelines for the rapid interfacility transfer of the major trauma patient to the appropriate tertiary trauma care center.
4. An on-call schedule of consultants utilized in each critical care area.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

I Hospitals

Every **Level V Urban Center** should have:

1. For those hospitals taking care of trauma care patients, verification by the **American College of Surgeons as either a Level III or a Level II Trauma Center**, and at least one hospital verified as a Level II Trauma Center.
2. For those hospitals taking care of pediatric trauma patients, verification by the **American College of Surgeons as a Level II Trauma Center with Pediatric Commitment.**
3. **At every hospital :**
 - Lab, blood gas, and X-ray technicians in-house, 24 hours-a-day.
 - Adult, child, and infant resuscitation equipment, and a plan for its maintenance.
 - An area equipped to receive a cardiac patient, with oxygen, monitor/defibrillator, oral suction, and a resuscitation crash cart; and a system to check equipment every day.
 - An emergency power source for care of critical patients in the event of power failure.
 - A system for returning equipment received with patients from outlying communities; and retrieving equipment sent with patients to other facilities.
 - Agreements with other hospitals in the community defining how resources should be shared during situations that overtax their facilities such as mass casualty disasters.
 - A security room or a procedure for keeping combative patients under observation, and to help ensure safety of staff and other patients.
 - A procedure and alarm system for protection of staff in the event of a behavioral emergency.
4. 24-hour, 7-day-a-week physician in-house emergency department coverage including:
 - Protocols for notification and response of physicians and trauma team before arrival of the patient.
5. For every **Acute Care Hospital**, the capabilities to:

- Perform endotracheal intubation and cricothyroidotomies.
 - Administer oxygen and monitor oxygen concentrations.
 - Support respiration artificially, both manually and mechanically through a respirator.
 - Perform pleural decompression by needle thoracentesis using flutter valves, and by chest tube insertions.
 - Provide Advanced Cardiac Life Support and Pediatric Advanced Life Support according to the standards of the American Heart Association or Advanced Pediatric Life Support.
 - Use an external cardiac pacemaker on an emergency basis and have patient transfer procedures to a cardiac center (intensive care and/or surgery).
 - Stop continuous bleeding with pressure and instruments.
 - Insert peripheral and central IVs on adult and pediatric patients.
 - Monitor fluid resuscitation, including Foley catheterization.
 - Immobilize a spinal injury until evaluation can be completed.
 - Perform complex x-ray examination.
 - Perform gastric lavage.
 - Perform peritoneal dialysis.
 - Modify a patient's core temperature.
 - Splint extremities definitively.
 - Debride wounds of the extremities.
 - Care for complicated perinatal cases in those hospitals doing obstetrics when transfer is impractical or impossible, including emergency Cesarean section within one hour on a 24 hour basis, and fetal monitoring.
6. All hospitals with surgical capabilities and a general surgeon should have the capability to:
 - Perform emergency intracranial decompression with neurosurgical consultation.
 - Perform emergency abdominal, chest, and vascular surgery.
 - An inter-hospital trauma care committee to identify resources and facilities for best patient care.

II Specialty Care Centers

A – Trauma Care

Every **Level V Urban Center** should have:

1. At least one hospital capable of optimum treatment of multiple injuries, according to American College of Surgeons Level II Trauma Center Standards.
2. For all hospitals accepting patients from other hospitals for treatment of multiple injuries:
 - Surgical specialists using a multi-disciplinary approach to multiple injuries: neurosurgeons, thoracic surgeons, orthopedic surgeons, urologists, otolaryngologists, oral surgeons, vascular surgeons and general surgeons should be available for consultation or to respond to the hospital based on reports from the field.
 - Personnel for X-ray and laboratory in the building 24 hours a day.
 - An intensive care unit with staff trained in critical care.
 - Respiratory therapy personnel in the building 24 hours a day..
 - Sophisticated visual imaging diagnostic equipment.
 - Dialysis capabilities.
 - Extracorporeal circulation (ECC) for major heart and vascular injuries.
 - Capability for microsurgical technique for replantation.

B – Cardiac Emergency Care

Every **Level V Urban Center** should have:

1. At least one hospital with a cardiac care unit:
 - Under the direction of a board-eligible or board-certified Cardiologist.
 - With capability for direct monitoring of pulmonary artery pressure.
 - With capability of inserting a cardiac pacemaker on an emergency basis.
 - With capability for inserting and managing an intra-aortic balloon pump.
 - With availability of cardiac surgery within one hour.

C – Head, Neck & Spinal Injury Care

Every **Level V Urban Center** should have:

1. At least one identified hospital capable of intermediate care of head and spinal injuries.

2. At those hospitals accepting patients from other hospitals for intermediate care of head and spinal injuries:
 - 24-hour availability of a neurosurgeon and an orthopedist within thirty minutes.
 - For spinal injuries only: beds and equipment for the management of injured spine patients for up to one week, including surgical management with neurological consultation if indicated; nursing staff trained in care and transporting of patients to a spinal cord center; physical therapy; and specialized neuro-radiological capability.
 - Identified spinal cord injury centers to which they may transfer patients for continued rehabilitation.
 - Written guidelines for the treatment and transfer of head and spinal injury patients, for facilities sending in patients.

D – Thermal Injury Care

Every **Level V Urban Center** should have:

1. At least one hospital in the community capable of caring for moderate to major thermal injuries.
2. For those hospitals accepting patients with moderate to major thermal injuries:
 - A designated thermal care team including board-certified orthopedic surgeon and plastic surgeon; nurses with specialized thermal injury training; respiratory therapist; physical therapist with splinting experience; nutritionist; medical social worker; and prosthetics consultation.
 - Lab and X-ray personnel in building 24 hours a day.
 - A designated care area providing for the patient's isolation needs, with hydrotherapy in close proximity.
 - Equipment for a thermal controlled environment.
 - Criteria established by the burn team for identifying patients requiring transfer, and protocols for transferring them to a recognized thermal injury center for care and rehabilitation, based on American Burn Association standards and the thermal injury center to which they transfer.
 - Written protocols on the treatment of thermal injury patients, for facilities sending in patients.
 - Capability to perform manual muscular evaluations and electromyelograms.

E – Perinatal Emergency Care

Every **Level V Urban Center** should have:

1. At least one hospital with the capability for comprehensive perinatal care.
2. For those hospitals accepting patients for acute perinatal and neonatal care:
 - A designated neonatal care team, including a neonatologist, nurses with special neonatal training, respiratory therapist, nutritionist, medical social worker, and biomedical engineer and a pediatric surgeon.
 - Diagnostic lab services to assess fetal and maternal well-being, including diagnostic ultrasound, available 24 hours a day.
 - 24-hour capability to provide oxygen therapy for small and ill infants, and the ability to monitor inspired oxygen concentration and arterial blood gases.
 - Capability to continuously monitor vital functions such as heart rate, blood pressure, respiration and temperature.
 - Capability to use assisted ventilation.
 - Criteria established by the neonatal care team to identify which infants can be cared for in their facility, and which require transfer to higher level neonatal center.
 - For referring hospitals, information on their capabilities and written protocols on stabilization and transfer of infants to the most appropriate neonatal care facility.

F – Poisoning Care

Every **Level V Urban Center** should have:

1. A single Poison Information Center, which serves the entire medical catchment area and provides:
 - 24-hour in-house staff with specialized training in poison control management, under the direction of a physician.
 - Information and consultation for hospitals, physicians and health professionals throughout the service area via a toll-free number.
 - Direct access to advice and information by the public in the surrounding metropolitan area via a toll-free, well-advertised number.
 - Direct access to a complete local toxicological laboratory service.

- Established communications links and protocols for working with higher level poison control centers.
- Poison information that is easily retrievable and updated at least quarterly.
- A mechanism for transferring data to a statewide data collecting agency on poisoning and overdose incidence and common agents.
- An ongoing program of general information for professionals and the public on the center's capabilities, appropriate use of its resources, access, poison prevention and appropriate emergency action.

G – Behavioral Emergency Care

Every **Level V Urban Center** should have:

1. An identified facility to which patients with severe behavioral problems are transferred and protocols for their transfer.
2. Transfer agreements between hospitals and the facility receiving patients with severe behavioral problems, which specify the agency which will provide transport personnel.

H – Pediatric Emergency Care

Every **Level V Urban Center** should have:

1. For those hospitals accepting pediatric trauma patients:
 - A surgeon and medical specialists appropriately credentialed to provide pediatric trauma care available and on call at all times.
 - Special equipment necessary for the resuscitation, surgery, and postoperative care of infants and children. This must be immediately available to every hospital unit providing care for injured children.
 - A designated and identifiable emergency department area with appropriately trained staff, and pediatric equipment. This area must allow free movement of personnel and equipment without unnecessarily exposing the child to potential additional stress.
 - Comprehensive diagnostic and laboratory facilities, including micro-sampling capability and immediate computed tomographic scan availability 24 hours a day.

- Intensive care with pediatric capabilities provided by appropriately trained surgical and pediatric specialists, with appropriate equipment and other ancillary personnel.
- A pediatric floor or unit staffed by trained and appropriately credentialed professionals. Facilities that use rotating or floating healthcare professionals must document that those assigned to pediatric coverage maintain ongoing education and training in pediatric care.

I – Hyperbaric Emergency Care

Every **Level V Urban Center** should have:

1. Availability of a hyperbaric chamber within one hour.
2. Physician and ancillary personnel with specialized training in hyperbaric medicine.

J – Rehabilitation Care

Every **Level V Urban Center** should have:

1. At least one hospital with the capability for comprehensive rehabilitation services for moderate to major disabling conditions.
2. Identified rehabilitation referral centers to which patients may be transferred for continued rehabilitation.
3. For those hospitals accepting patients with moderate to major rehabilitation patients:
 - Rehabilitation service staffed by personnel trained in rehabilitation care and equipped properly for acute care of the critically injured patient.
 - Full in-house service or transfer agreement to a rehabilitation service for long-term care.
 - Provide provision of recreational and education services during hospitalization for those patients able to use them.
 - Provide evaluation of the needs and support capabilities of the patient's family, as well as of others providing help for and cooperative planning with the family for the patient's discharge from the hospital.
 - Provide documentation of need for and availability and accessibility of community resources to assist in meeting the patient's physical, psychosocial, educational, and vocational needs after discharge from the hospital.

- Provide evaluation of each patient's status performed at appropriate intervals after discharge from the hospital.
- Provide provision for readmission for medical or surgical treatment for late problems or for rehabilitation and reconstruction.

B EQUIPMENT & SUPPLIES

Every **Level V Urban Center** should have:

1. Trauma kits readily available for first responders, equipped as recommended in **Section 731**.
2. One extrication kit for first responders, equipped as recommended in **Section 731**.
3. Equipment and supplies appropriate for training level of EMS providers.
4. Equipment and supplies for emergency care for both pediatric and adult patients as recommended in **Section 732**.
5. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Level V Urban Center** should have:

1. Coordination between public safety agencies with mutual aid agreements.

B ENVIRONMENTAL RESPONSE

Every **Level V Urban Center** should have:

1. A community plan for hazardous materials response which covers the topics in *Managing Hazardous Materials Incidents, Volume I-II* (available from the State EMS Office).
2. Personnel trained in the recognition of, and immediate response to hazardous materials emergencies. Core personnel should be trained to the hazmat specialist level.
3. A procedure for notifying appropriate agencies if a hazardous materials release occurs.
4. A procedure for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release, including teams trained in decontamination,

treatment, and transport of seriously contaminated patients.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Level V Urban Center** should have:

1. A plan for monitoring and documenting emergency care costs and for coordinating billing attempts with appropriate local or regional agencies.
2. A plan to assure that services are financed so the consumer's ability to pay or economic status does not interfere with delivery of services at the time of need and does not affect the quality of health services provided.
3. A data collection system that documents trauma system provider costs.

B EQUAL CARE OPPORTUNITY

Every **Level V Urban Center** should:

1. Ensure that all patients are provided emergency care and transportation without regard to race, creed, color, sex, national origin, disability, or ability to pay.

C SERVICE AVAILABILITY

Every **Level V Urban Center** should have:

1. All residences with telephone access to an organized ambulance service in their community at all times.
2. 911 Enhanced telephone access available.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Level V Urban Center** should:

1. Maintain training, personnel, and medical records as required by applicable state and federal laws.
2. Use ambulance run report forms which meet minimum state and local data requirements and provide an effective mechanism for

local medical audit. There is a state minimum data set for run reports.

3. Have, for every hospital, a coordinated record system which incorporates:
 - The emergency department log,
 - Ambulance records
 - Other hospital records,
 - Trauma registry, and
 - A system allowing ambulances to pass on prehospital reports to clinics and hospitals.
4. Ensure that patient records covering the prehospital, emergency department, in-hospital and transfer phases of patient care are coordinated, enabling easy follow-up of a patient's condition and treatment.
5. Have a computerized information system for all run reports.
6. Have hospitals that offer an easily accessible discharge diagnosis data system, compatible with other hospitals in the state.
7. Ensure that emergency medical services provide summary data (the *Annual EMS Response Survey*) to subregional, regional, and state EMS agencies.

B REGIONAL & STATE COORDINATION

Every **Level II Regional Center** should:

1. Ensure that Trauma Registry data and other patient care information be collected at every acute care hospital and rehabilitation facility.
2. Ensure that a copy of the original prehospital run report information be provided to every acute care hospital receiving transported patients.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Level V Urban Center** should have:

1. A public education program to ensure that residents and visitors are familiar with the emergency care resources available to them, including 911 and accessing the local EMS system.

B EMERGENCY RESPONSE

Every **Level V Urban Center** should have:

1. At least one certified CPR instructor per 500 people.
2. At least one First Aid instructor per 500 people.
3. First Aid and CPR classes for all school students.
4. First Aid and CPR classes for community residents annually.
5. Access to training aids necessary for CPR and First Aid training.
6. At least 25 percent of all residents trained in CPR with information for trauma and hypothermic victims.
7. Posted procedures for accessing the local EMS system available to all school personnel for the efficient handling of injuries and other emergencies, including plans for the transport of critically injured or ill children to an appropriate facility.
8. Information available to public safety and local government personnel as to who to contact in case of a disaster.
9. A coordinator to schedule and oversee CPR and First Aid training in the community. This person should coordinate with the Regional EMS Office.

C CONSUMER PARTICIPATION

Every **Level V Urban Center** should:

1. Encourage consumer participation in EMS and trauma care planning and policy development.
2. Identify consumers with special interest in EMS and encourage their participation in appropriate events.
3. Maintain a library of injury prevention resources (see **Component 14B**).
4. Have a local EMS or health council with consumer representation with EMS and trauma experience.
5. Encourage participation in EMS and trauma care planning and policy development by business and government leaders.

10 EVALUATION

A LOCAL REVIEW

Every **Level V Urban Center** should:

1. Establish a mechanism for annual evaluation of the overall EMS program in the

- community, including the trauma care system, in coordination with existing state and regional EMS evaluation procedures.
2. Have a physician medical director review all emergency response runs to determine whether the care and transfer provided were appropriate and in accordance with local, regional, and state guidelines.
3. Establish, for every hospital, a plan to meet the Joint Commission on Accreditation of Healthcare Organizations hospital standards, and the American College of Surgeons, Committee on Trauma standards for trauma centers.
4. For each state-certified ambulance service, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.
5. For each acute care hospital, have a continuous quality improvement program to evaluate trauma care and all other EMS patient care.

B REGIONAL REVIEW

Every **Level V Urban Center** should:

1. Coordinate a community EMS review using the recommendations contained in *Alaska EMS Goals* every three years.

C STATE REVIEW

Every **Level V Urban Center** should:

1. Participate in the state patient care review process.

11 DISASTER RESPONSE

A COORDINATION

Every **Level V Urban Center** should:

1. Maintain an integrated all-hazard plan.
2. Be included in a state/regional/sub-area disaster plan. The plan should identify the most likely disaster threats, address these threats with action plans, define the roles and responsibilities of key public health and safety officials in the event of a disaster, and explain how regional and state disaster response resources are accessed.
3. Have disaster plans of local entities (airport, hospital, industries, military bases)

- incorporated into the community disaster plan.
4. Be familiar with the *Protocol for Emergency Medical Response for Mass Casualty Incidents* (available from the State EMS Office).
 5. Have memoranda of agreement (MOAs) and memoranda of understanding (MOUs) with those agencies and providers that would be relied upon in emergency situations over-taxing routine procedures and resources. Agreements should include documentation of cost to allow reimbursement of expenses by the community and/or state.

B TRANSPORTATION

Every **Level V Urban Center** should have:

1. A plan for ensuring that patients can be evacuated from the community in a disaster
2. A system for retrieving equipment used in transports.
3. Identification of a secondary point for evacuation during a disaster.
4. A plan for staging, triage, and transport (including air medical) of multiple casualties.

C PERSONNEL

Every **Level V Urban Center** should have:

1. A full-time Disaster Preparedness Coordinator.
2. All prehospital personnel trained in the Incident Command System and familiar with the initial response to a disaster, and the ability to access additional personnel, equipment, supplies, and transportation resources.
3. Adequate community personnel trained and certified as Red Cross Shelter Managers.

D TRAINING

Every **Level V Urban Center** should have:

1. The Disaster Preparedness Coordinator complete the following FEMA Home Study Courses: *HS-1 Emergency Program Manager*, *HS-2 Emergency Management, USA*; *HS-5 Hazardous Materials: A Citizen's Orientation*; and *Professional Development Curriculum*.

2. Annual disaster exercises that include all the individuals and agencies most involved in decision making for and the response to a catastrophic event. The exercise should include the activation of the emergency operations center (EOC) and the EOC staff, and should be coordinated with regional EMS agencies.
3. All Community Shelter Managers complete a Shelter Systems Officer Course approved by the American Red Cross.

F FACILITIES & EQUIPMENT

Every **Level V Urban Center** should:

1. Have sufficient equipment to initiate a rapid and safe disaster response.
2. Have a plan for accessing additional equipment and supplies, through mutual aid agreements or direct requests to regional and state disaster agencies.
3. Have an established plan for EMS equipment resupply and return.
4. Evaluate and designate local buildings (schools, churches, community centers) as resources in the disaster plan for sheltering.
5. Identify potential triage, treatment, and transfer sites in disaster facilities.
6. Have pre-stocked disaster supplies available in case of mass casualty disasters, as recommended in **Section 737**.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTAINANCE

Every **Level V Urban Center** should:

1. Establish and maintain written mutual aid agreements between local emergency response agencies (e.g., EMS, fire, law enforcement, National Guard, Coast Guard, other military).
2. Have a state-certified emergency medical service with written mutual aid agreements with adjacent services for back-up support, patient transfer from service to service, equipment compatibility and retrieval.
3. Have a highway first responder system with written mutual aid agreements between the emergency medical service and highway first responders who are not part of your emergency medical service.

4. Have, for air medical evacuation more than 60 minutes from a hospital, written mutual aid agreements with certified air medical services or for helicopter or fixed-wing evacuation services. These would include:
 - Person (s) designated to make requests for service.
 - Procedures for accessing and requesting service.
 - Procedures for rendezvous.
 - Procedures for reimbursement of aircraft costs.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Level V Urban Center** should have:

1. For every emergency service:
 - A physician to serve as medical director for certified prehospital emergency care personnel, who agree to fulfill the responsibilities of a physician medical director as outlined in the state EMS regulations.
 - Capability for receiving direct physician supervision by phone or radio.
 - Emergency medical records reviewed by the Physician Medical Director or designee at least monthly.
 - Written guidelines for prehospital patient care recommended by the medical director, in all emergency care areas.
 - A system for on-line medical direction of prehospital/interfacility providers. The system should include on-line physician advisor or designees qualifications and responsibilities and pre-established policies, procedures, and protocols for training, triage, treatment, transport, and operations.
 - Identification of a mix of health care professionals designated to provide patient care services under medical direction for both the off-line and on-line medical direction systems.
 - Strategies identified to strengthen and improve the current on-line and off-line medical direction systems.

B REGIONAL/STATE EMS SYSTEM MEDICAL DIRECTORS

Every **Level V Urban Center** should:

1. Know how to contact the State/Regional EMS Medical Directors for additional information on medical direction.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Level V Urban Center** should have:

1. An injury prevention plan that includes an assessment of community injury problems and objectives for public education and school health education.
 - The **community assessment** should identify the major causes of injury within the area, methods of preventing or limiting the risk of injuries, and prevention resources.
 - The **public education component** should provide activities to build public awareness about information on prevention, and details about accessing EMS resources.
 - The **school health education** component should provide prevention and survival education for all school age children.
2. Ordinances and policies in place that decrease the risk of injuries to community residents and visitors.
3. Active injury prevention programs coordinated with other agencies to educate the public, change the environment, or develop ordinances to enhance safety. Examples include: boating and water safety, survival, home safety, fire prevention, helmet use, firearm safety, seat belts, child car seats (infants and children), and establishing safety policies regarding community sponsored events.

B TRAINING

Every **Level V Urban Center** should have:

1. Local health, social services, education, and public safety personnel who are trained to provide injury prevention information as a part of routine duties. Information is available from the State EMS Office.
2. Injury prevention reading materials and videos available for self-study including the books, *Alaska Injury Prevention Plan* (available from the State EMS Office); *Injury Prevention, Meeting the Challenge*,

and *The Injury Prevention Fact Book* in an accessible location such as public libraries.

SECTION 680

OTHER AREAS

OVERVIEW

This section contains the specific EMS recommendations for **Other Areas** described in **Section 410**. These other areas include:

- ◆ **681 Very Small Communities**
- ◆ **682 Highways**
- ◆ **683 Marine Highways**
- ◆ **684 At-Risk Sites**

The recommendations are organized in the fourteen-component framework described in **Section 430**. Due to the small size of these areas, not all the components of the framework are used for the recommendations.

Section 830 for a listing of **Very Small Communities** and **High-Risk Work Sites**.

681 Very Small Communities

681.1 Recommendations

1 PERSONNEL

Every **Very Small Community** should have:

1. At least one person who has received Emergency Trauma Technician training and who knows how to use the First Responder Trauma Kit (see **Section 731**). Emergency Medical Technician training is highly recommended.
2. One person designated to communicate with the emergency care provider and/or emergency transportation service.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Very Small Community** should have:

1. A means for first responders to contact the designated emergency care receiving facility.
2. A means for two-way communications among first responders.
3. A means for two-way communications between first responders on the highway and the ambulance service covering their area if applicable.
4. Emergency care providers trained in relay of medical communications as appropriate to their local resources.
5. Posted communications procedures.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

Every **Very Small Community** should have:

1. Copies of the current *Alaska Trauma Triage, Transport & Transfer Guidelines* for all emergency care providers.

B RESOURCES

Every **Very Small Community** should have:

1. Prior arrangements with a specific agency or transport service for emergency patient evacuation when needed.
2. A posted set of instructions for contacting the emergency transport service based on the *Alaska Trauma Triage, Transport & Transfer Guidelines*.
3. Specific directions for ground preparations for aircraft landing, if required for medevac.

5 FACILITIES, EQUIPMENT & SUPPLIES

B EQUIPMENT & SUPPLIES

Every **Very Small Community** should have:

1. Stored in a designated area, a set of Basic Life Support equipment, as recommended by a Regional EMS Council.
2. Stored along with Basic Life Support equipment, a standard reference book on treating emergencies in the wilderness, as recommended by a Regional EMS Council.
3. Trauma kits readily available for first responders, equipped as recommended in **Section 731**.
4. Predetermined procedures for maintaining equipment.

6 PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

Every **Very Small Community** should have:

1. A means to contact the nearest State Trooper or Village Public Safety Officer.

B ENVIRONMENTAL RESPONSE

Every **Very Small Community** should:

1. Know who to contact to report a hazardous materials spill.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

Every **Very Small Community** should have:

1. A plan for monitoring emergency care costs and for coordinating patient care billings with appropriate local or regional agencies.
2. A copy of the State Billing Work Book (available from the State EMS Office).

B EQUAL CARE OPPORTUNITY

Every **Very Small Community** should:

1. Ensure that all patients in need of EMS are provided emergency care and transportation without regard to race, creed, color, sex, national origin or ability to pay.

C SERVICE AVAILABILITY

Every **Very Small Community** should:

1. Have access via telephone or radio to trained and equipped emergency medical responders within a reasonable time at all times.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Very Small Community** should:

1. Maintain training, personnel, and medical records as required by applicable state and federal laws.

B REGIONAL & STATE COORDINATION

Every **Very Small Community** should:

1. Have a system for providing summary data to regional and state EMS agencies.
2. Use a state-approved patient care form for emergency medical services.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Very Small Community** should have:

1. Prior arrangements with a designated emergency care provider (physician, physician assistant, nurse, health aide, etc.), who can give instructions by phone or radio if needed. Instructions for contacting the

provider and alternate providers should be posted.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Very Small Community** should:

1. Build a local working group on injury prevention.

B TRAINING

Every **Very Small Community** should have:

1. Access to travel to EMS symposia.
2. Access to injury prevention materials and resources.

682 HIGHWAYS

682.1 Recommendations

I PERSONNEL

B PROVIDERS

Every **Highway** should have:

1. A designated first responder trained to at least EMT level, available to respond to an emergency at any point along the highway system, within 15 minutes from call to dispatch of notification, for at least 75 percent of calls. First responders should be equipped with trauma kits as recommended in **Section 731**.
2. EMS coverage to any area within 30 minutes from receipt of call.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Highway** should have:

1. A means for first responders or ambulance service personnel to contact the designated emergency care receiving facility to which they refer patients.
2. A means for two-way communications among first responder or ambulance service personnel.
3. A means for two-way communications between first responders on the highway and the ambulance covering their area if applicable.
4. A means to dispatch first responders or ambulance service personnel at all times.
5. A means for two-way communications between emergency responders.
6. A continuous communication link among designated persons along the highway to monitor emergency telephone and CB calls, 24 hours a day. They should have:
 - Dispatcher training to learn about available resources, when, and how they should be accessed, and correct information to be relayed.
 - Written information on which agency to call for specific types of emergency assistance

requested, and how agencies may be contacted.

- Where technically feasible, the ability to access emergency services by CB from any point along the highway.
- Emergency call boxes or other emergency telephone access every ten miles.

4 PATIENT TRANSPORT/TRANSFER

B RESOURCES

Every **Highway** should have:

1. A state-certified ambulance service, with standards equivalent to at least a Level II Community, located at least every 100 miles, and certified first responder services at least every 50 miles.
2. Access within a reasonable period of time, to a state-certified air medical service for transport when appropriate.

C PROTOCOLS

Every **Highway** should have:

1. A plan for transporting patients based on the degree of injury, available equipment, and the level of personnel available to accompany a particular type of transport (see *Alaska Trauma Triage, Transport & Transfer Guidelines*).
2. Established procedures for emergency air transport of adult and pediatric patients as delineated in the *Alaska Medevac Manual*.
3. A system for retrieving equipment transported with the patient.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

Every **Highway** should have:

1. Available to all highway travelers, ready, up-to-date, easy-to-read information on:
 - The nearest emergency services,
 - How to access emergency services,
 - Current limitations of the emergency services,
 - How to be prepared for an emergency,

- What to do in an emergency, and
- Basic survival skills in cold weather.

12 MUTUAL AID AGREEMENTS

A ESTABLISHMENT & MAINTENANCE

Every **Highway** should:

1. Establish and maintain written mutual aid agreements with adjacent and neighboring communities.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Highway** should:

1. Be included in the state highway safety plan.

683 Marine Highway

683.1 Recommendations

I PERSONNEL

A ADMINISTRATION

The **Marine Highway System** should have:

1. A designated person to coordinate EMS activities.
2. Input into a regional/sub-area EMS plan.
3. A plan for accessing Critical Incident Stress Debriefing (CISD) for providers as indicated.
4. A physician medical director who assumes the responsibilities of a medical director outlined in EMS regulations.

B PROVIDERS

The **Marine Highway System** should have:

1. A designated safety officer on board each ship with at least ETT training and who:
 - Is available to provide emergency care at all times,
 - Is trained in the use of communications as appropriate for local resources, and
 - Has access to physician medical consultation at all times.

2 TRAINING

A STANDARDS

The **Marine Highway System** should have:

1. Basic training programs for ETTs and EMTs including pediatric and trauma care.
2. All emergency medical services personnel trained to applicable state or national standards regarding hazardous materials, bloodborne pathogens, incident command system, emergency vehicle operations, and confined space.
3. For all emergency responders, an ongoing training and continuing education program adequate to meet the recertification needs of all providers.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

The **Marine Highway System** should have:

1. A system for direct two-way communications between emergency care providers and hospitals to which they refer patients, and with the physician in the nearest emergency department.
2. A current inventory of communications equipment.
3. A means to notify on-board emergency medical services personnel 24 hours a day.

C BACKUP & RELIABILITY

The **Marine Highway System** should have:

1. A back-up system for direct two-way communications between emergency care providers and the hospitals to which they refer patients, and with physicians in the nearest emergency department.

4 PATIENT TRANSPORT/TRANSFER

A STANDARDS

The **Marine Highway System** should have:

1. Access to a regional or sub-regional state certified ground medical service.
2. Copies of the current *Alaska Trauma, Triage, Transport & Transfer Guidelines* for all ships.

B RESOURCES

The **Marine Highway System** should have:

1. A directory of emergency transportation resources available and directions for their access.

C PROTOCOLS

The **Marine Highway System** should have:

1. A plan for transferring patients based on the degree of injury, available equipment, and the level of personnel legally authorized for

accompanying a particular type of transport (see *Alaska Trauma, Triage, Transport & Transfer Guidelines*).

2. Established procedures for emergency air transport of adult and pediatric patients.
3. A system for retrieving equipment transferred with the patient.
4. Posted procedures for patient transport.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

The **Marine Highway System** should have:

1. A designated room on the vessel for providing basic medical care to injured or ill patients until emergency medical transportation can be arranged to an appropriate medical facility.

B EQUIPMENT & SUPPLIES

The **Marine Highway System** should have:

1. Emergency care equipment and supplies, as recommended in **Section 731 – First Responders**.
2. Equipment and supplies appropriate for training level of EMS providers.
3. Equipment and supplies for emergency care for both pediatrics and adult patients as recommended in **Section 734 – Clinics**.
4. Pre-determined procedures for maintaining equipment.

PUBLIC SAFETY

A PUBLIC SAFETY AGENCIES

The **Marine Highway System** should have:

1. A means to contact the nearest Alaska State Trooper or other appropriate law enforcement agency.

B ENVIRONMENTAL RESPONSE

The **Marine Highway System** should have:

1. Personnel trained in the recognition of, and immediate protection of people during, a hazardous materials release.

2. A plan for activating local, regional, or state hazardous materials response teams in the event of a hazardous materials release.

7 ACCESSIBILITY TO CARE

A FINANCING SERVICES

The **Marine Highway System** should have:

1. Appropriate training and equipment funded by the Alaska Marine Highway system.

B EQUAL CARE OPPORTUNITY

The **Marine Highway System** should:

1. Ensure that all patients in need of EMS are provided with emergency care and transportation without regard to race, creed, color, sex, national origin, disability or ability to pay.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

The **Marine Highway System** should:

1. Maintain training, personnel and medical records as required by applicable state and federal laws.

B REGIONAL & STATE COORDINATION

The **Marine Highway System** should:

1. Have a system for providing summary data to the regional and state EMS agencies.
2. Use a state-approved patient care form for emergency medical services.

9 PUBLIC INFORMATION & EDUCATION

A ACCESS

The **Marine Highway System** should have:

1. A public education program to ensure that visitors are familiar with the emergency care

resources available to them, and how they may be accessed.

10 EVALUATION

B QUALITY IMPROVEMENT

The **Marine Highway System** should:

1. Have a system for correcting deficiencies in individual or agency performance based on the review of emergency runs.

11 DISASTER RESPONSE

A COORDINATION

The **Marine Highway System** should:

1. Have a shipboard fire fighting plan.

B TRANSPORTATION

The **Marine Highway System** should have:

1. A plan for ensuring that ill or injured patients can be triaged, treated/stabilized and evacuated from the vessel in a disaster.
2. A system for retrieving equipment used in transports.

C PERSONNEL

The **Marine Highway System** should have:

1. Personnel with training in the Incident Command System, familiarity about the initial response to a disaster, and the ability to access additional personnel, equipment, supplies, and transportation resources.

D TRAINING

The **Marine Highway System** should have:

1. Annual disaster exercises that include those individuals and agencies most likely to be involved in disaster response. The exercise should be coordinated with regional EMS agencies.

E FACILITIES & EQUIPMENT

The **Marine Highway System** should have:

1. Sufficient equipment to initiate a rapid and safe disaster response.
2. A plan for assessing additional equipment and supplies, through mutual aid agreements of direct request to regional and state disaster agencies.
3. An established plan for equipment resupply and return to potential disaster threats.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

The **Marine Highway System** should have:

1. A physician identified to act as the medical director for prehospital emergency care personnel, who agrees to fulfill the responsibilities of a physician medical director as outlined in the EMS regulations.
2. Access to medical consultations for emergency care providers at all times.

14 INJURY PREVENTION

B TRAINING

The **Marine Highway** should have:

1. Orientation of all new employees to safety practices and activation of EMS system.
2. On-going safety education for employees.

684 At-Risk Sites

684.1 Schools

684.11 Recommendations

I PERSONNEL

B PROVIDERS

Every **School** should have:

1. At least two people, trained to the ETT level or above, responsible for first aid and necessary referral for sick or injured children.
2. A designated safety coordinator.

2 TRAINING

A STANDARDS

Every **School** should have:

1. For all teachers, an annual orientation to current emergency procedures.

**4 PATIENT
TRANSPORT/TRANSFER**

C PROTOCOLS

Every **School** should have:

1. Posted procedures, known to all school personnel, for the efficient handling of injuries and emergencies, including plans for the transport of critically injured or ill children to an appropriate facility, by appropriately trained and equipped EMS personnel.
2. Procedures for handling of medical and dental emergencies in accordance with policies reviewed and approved by the official health agency serving the community.

**9 PUBLIC EDUCATION &
INFORMATION**

A ACCESS

Every **School** should have:

1. Appropriate access to emergency medical services included in their curriculum.

B EMERGENCY RESPONSE

Every **School** should have:

1. First Aid and CPR included in their curriculum.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **School** should have:

1. A safety plan that includes playground and sport activities and events.
2. Injury prevention and safety education included in their curriculum.
3. For those students engaged in physical education and competitive athletic programs:
 - An evaluation of each individual's appropriate level of participation.
 - A plan for graduated conditioning.
 - Training in the prevention of injuries relevant to each type of activity.
 - Appropriate safety equipment.

684.2 High-Risk Work Sites

The Alaska Department of Labor, Division of Occupational Safety and Health (OSHA) Standards has established minimum standards which all industries and occupational groups should meet. See *Article 5-Medical and First Aid, Subchapter of the General Safety Code*. Certain occupational groups – construction, logging, pulp, paper and paperboard mills, sawmills, and petroleum – are required to meet additional minimal OSHA standards for first aid.

684.21 Remote Sites

I PERSONNEL

B PROVIDERS

Every **Remote High-Risk Work Site** should have:

1. One designated person, preferably trained to at least EMT, to coordinate planning and preparation for emergency response. This person should be responsible for:
 - Liaison with community-based health services;
 - Communicating with physician advisor;
 - Arranging for initial and refresher training of emergency response personnel;
 - Coordinating periodic practical exercises specific to the industry;
 - Inventorying, maintaining, ordering EMS equipment and supplies; and taking charge of medevacs.
2. At least two workers trained to the ETT level or above.
3. One emergency medical provider for every 25 employees, but at least one at each isolated work area (a work area is the smaller work unit within the work site which may be physically isolated or cut off from the rest of the workers), with the following minimum training:
 - Basic 40-hour ETT training,
 - Training in medevac procedures, and
 - Training in handling medical emergencies specific to industry.
4. Designated non-medical support personnel with technical expertise specific to the hazards presented by the industry, who can be available in an emergency.

5. A designated person in charge of on-site safety.
6. On every medevac from industrial site to medical facility utilizing local personnel, and attendant with a minimum of ETT skill level.

2 TRAINING

A STANDARDS

Every **Remote High-Risk Work Site** should have:

1. All emergency care providers trained to applicable state or national standards including hazardous materials, bloodborne pathogens, Incident Command System, emergency vehicle operation and confined space.
2. For all emergency care providers, an ongoing training and continuing education program adequate to meet the recertification needs of all providers and Refresher training for emergency care providers and oriented to industry-specific hazards.
3. Company-sponsored practical exercises held in actual work areas at least twice a year, to practice response procedures for typical emergencies.

3 COMMUNICATIONS

A LOCAL/REGIONAL SYSTEMS

Every **Remote High-Risk Work Site** should have:

1. A means for two-way communications between emergency care providers and the ambulance service covering their area if applicable.
2. Two-way direct communications capability, with a physician (preferably), or an agency that can provide emergency medical assistance at all times.
3. Two-way direct communications capability between each isolated work area and the main station.
4. Posted procedures at the communications center on how to access the emergency response agency.

4 PATIENT TRANSFER/TRANSPORT

A STANDARDS

Every **Remote High-Risk Work Site** should have:

1. Access to a state-certified air medical service.
2. A copy of the current Alaska Trauma Triage, Transport & Transfer Guidelines.

B RESOURCES

Every **Remote High-Risk Work Site** should have:

1. For isolated sites with road access to an emergency service, a designated vehicle for emergency transport of more than one hour from an ambulance service.
2. At the site's communication center, a posted list of air services available, their capabilities and resources, and how to contact them.

5 FACILITIES, EQUIPMENT & SUPPLIES

A FACILITIES

Every **Remote High-Risk Work Site** should have:

1. For worksites employing more than 50 people, a first aid room equipped as recommended in **Section 738-Remote Sites**.

B EQUIPMENT & SUPPLIES

Every **Remote High-Risk Work Site** should have:

1. Readily available to each isolated work area and at the main station, a trauma kit or its equivalent equipped as recommended in **Section 738-Remote Sites**.

8 COORDINATED RECORD KEEPING

A LOCAL RECORD KEEPING

Every **Remote High-Risk Work Site** should:

1. Maintain training, personnel, and medical records as required by applicable state and federal laws.

B REGIONAL & STATE COORDINATION

Every **Remote High-Risk Work Site** should:

1. Have a system to provide summary data to regional and state EMS agencies.
2. Use a state approved patient care form for emergency medical services.

13 MEDICAL DIRECTION

A EMS MEDICAL DIRECTORS

Every **Remote High-Risk Work Site** should have:

1. A physician advisor, to be responsible for:
 - Determining the appropriate level of emergency medical skills and training required for the site situation; and
 - Recommending specific emergency procedures.
2. A plan for contacting a physician in the event of a medical emergency.

14 INJURY PREVENTION

A PROGRAM DEVELOPMENT

Every **Remote High-Risk Work Site** should have:

1. A safety plan.

B TRAINING

Every **Remote High-Risk Work Site** should have:

1. Orientation of all new employees to safety practices and activation of the EMS system.
2. On-going training for the safety officer in injury issues and work-site hazards, and the control of these.

684.22 Nearby Sites**I PERSONNEL****B PROVIDERS**

Every **Nearby High-Risk Work Site** should have:

1. One emergency medical provider for every fifty employees, but at least two emergency care providers. Minimum training should include:
 - Emergency Trauma Technician (ETT) training.
 - Training in first response for medical emergencies specific to the industry.

2 TRAINING**A STANDARDS**

Every **Nearby High-Risk Work Site** should have:

1. For industries employing over fifty people, an ongoing training and continuing education program for all emergency care providers adequate to meet the recertification needs of all providers and refresher training for emergency care providers and oriented to industry-specific hazards.

3 COMMUNICATIONS**A LOCAL/REGIONAL SYSTEMS**

Every **Nearby High-Risk Work Site** should have:

1. Direct communication with the ambulance service.

4 PATIENT TRANSFER/TRANSPORT**A STANDARDS**

Every **Nearby High-Risk Work Site** should have:

1. Access to a state-certified air medical service.
2. A copy of the current *Alaska Trauma Triage, Transport & Transfer Guidelines*.

B RESOURCES

Every **Nearby High-Risk Work Site** should have:

1. For isolated sites with road access to an emergency service, a designated vehicle for emergency transport of more than one hour from an ambulance service.
2. At the site's communication center, a posted list of air services available, their capabilities and resources, and how to contact them.

11 DISASTER RESPONSE**A COORDINATION**

Every **Nearby High-Risk Work Site** should have:

1. For industries employing more than fifty people, a disaster plan linked with community resources and integrated into the community disaster plan.

D TRAINING

Every **Nearby High-Risk Work Site** should have:

1. Annual disaster drills.

14 INJURY PREVENTION**A PROGRAM DEVELOPMENT**

Every **Nearby High-Risk Work Site** should have:

1. A safety plan.

B TRAINING

Every **Nearby High-Risk Work Site** should have:

1. Orientation of all new employees to safety practices and activation of the EMS system.

2. On-going training for the safety officer in injury issues, work-site hazards, and the control of these.

SECTION 700 APPENDICES

OVERVIEW

This section is organized in five sub-sections.

- ◆ **Section 710 Glossary**
- ◆ **Section 720 Resources & References**
- ◆ **Section 730 Recommended EMS Equipment & Supplies**
- ◆ **Section 740 Sample Record Form**
- ◆ **Section 750 Past Priorities**

710 Glossary

Section 711 defines acronyms used in this guide. **Section 712** contains explanations of some EMS terms used in this guide. Definitions of the medical procedures, equipment, and specialist categories mentioned are not included.

711 Acronyms

AAC: Alaska Administrative Code
AANHS: Alaska Area Native Health Service
ACEMS: Alaska Council on EMS, see **Section 712**
ACLS: Advanced Cardiac Life Support, see **Section 712**
ADEC: Alaska Department of Environmental Conservation
ADES: Alaska Division of Emergency Services
ADHSS: Alaska Department of Health & Social Services
AHA: American Heart Association
ALS: Advanced Life Support, see **Section 712**
AMSEA: Alaska Marine Safety Education Association
AKPIRG: Alaska Public Interest Research Group
APLS: Advanced Pediatric Life Support, see **Section 712**
ARC: American Red Cross
AS: Alaska Statute

ASTM: American Society for Testing & Materials
ATLS: Advanced Trauma Life Support
ATR: Alaska Trauma Registry, see **Section 712**
BFA: Basic First Aid
BLS: Basic Life Support, see **Section 712**
BRU: Budget Request Unit
BTLS: Basic Trauma Life Support, see **Section 712**
CAP: Civil Air Patrol
CDC: Centers for Disease Control & Prevention
CHA: Community Health Aide, see **Section 712**
CHP: Community Health Practitioner
CISD: Critical Incident Stress Debriefing, see **Section 712**
CME: Continuing Medical Education
CPR: Cardiopulmonary Resuscitation, see **Section 712**
CQI: Continuous Quality Improvement
CSHB: Committee Substitute for House Bill
DHSS: Department of Health & Social Services, State of Alaska
DMAT: Disaster Medical Assistance Team, see **Section 712**
DNR: Do-Not-Resuscitate, see **Section 712**
DO: Doctor of Osteopathy
DOT: Department of Transportation
ED: Emergency Department, see **Section 712**
EMD: Emergency Medical Dispatcher
EMS: Emergency Medical Services
EMSC: Emergency Medical Services for Children
EMSS: Emergency Medical Services System
EMT: Emergency Medical Technician, see **Section 712**
EMT-D: EMT Defibrillator, see *Defibrillator Technician* in **Section 712**
EOC: Emergency Operations Center
EPCRA: Emergency Planning and Community Right-to-Know Act
ETT: Emergency Trauma Technician, see **Section 712**
ETT-D: ETT Defibrillator, see *Defibrillator Technician* in **Section 712**
FA: First Aid
FAA: Federal Aviation Administration
FACS: Fellow of the American College of Surgeons
FEMA: Federal Emergency Management Agency, see **Section 712**
FY: Fiscal Year
HB: House Bill
ICD: International Classification of Diseases, see **Section 712**
IHS: Indian Health Service
IREMSC: Interior Region EMS Council

LEPC: Local Emergency Planning Committee
LEPD: Local Emergency Planning District
MD: Medical Doctor
MICP: Mobile Intensive Care Paramedic, see **Section 712**
MICU: Mobile Intensive Care Unit, see **Section 712**
MLP: Mid-Level Practitioner, see **Section 712**
911-E: 911-Enhanced, see **Section 712**
NABEMS: Northwest Arctic Borough Emergency Medical Services
NEISS: National Electronic Injury Surveillance System
NFPA: National Fire Protection Association
NHTSA: National Highway Traffic Safety Administration
NIH: National Institutes of Health
NIOSH: National Institute for Occupational Safety and Health
NP: Nurse Practitioner, see **Section 712**
NR: National Registry, see **Section 712**
NSEMS: Norton Sound Emergency Medical Services
NSBEMS: North Slope Borough Emergency Medical Services
OSHA: Occupational Safety and Health Administration
PA: Physician Assistant, see **Section 712**
PALS: Pediatric Advanced Life Support, see **Section 712**
PASG: Pneumatic Antishock Garment
PFD: Personal Flotation Device
PHS: Public Health Service
PHTLS: Prehospital Trauma Life Support, see **Section 712**
PIE: Public Information and Education
PL: Public Law
PSA: Public Service Announcement
QA: Quality Assurance, see **Section 712**
QI: Quality Improvement, see **Section 712**
RFP: Request for Proposal
RN: Registered Nurse
SAR: Search and Rescue
SARA: Superfund Amendments and Reauthorization Act
SB: Senate Bill
SERC: State Emergency Response Commission
SEREMSC: Southeast Region EMS Council
SFA: Safety and First Aid
SPRANS: Special Project of Regional and National Significance
SREMSC: Southern Region Emergency Medical Services Council
TAT: Technical Assistance Team
US: United States
USCG: United States Coast Guard

USDOT: United States Department of Transportation
USPHS: United States Public Health Service
VPSO: Village Public Safety Officer, see **Section 712**
YKHCEMS: Yukon Kuskokwim Health Corporation EMS
YPLL: Years of Productive Life Lost, see **Section 712**

712 Definitions

Acute Care: Medical treatment rendered to individuals whose illnesses or health problems are of a short-term or episodic nature. Acute care facilities are those hospitals that mainly serve persons with short-term health problems.

Alaska Council on Emergency Medical Services: An eleven-member Governor-appointed board which advises the Department of Health and Social Services and Governor on EMS program policies and planning, priorities, expenditures and implementation. In addition, several agency representatives and the State EMS Medical Director are ex-officio members of the Council.

Advanced Cardiac Life Support: A 16-hour course offered by the American Heart Association to train physicians, nurses, paramedics, physician assistants, and other advanced level personnel in emergency cardiac care. ACLS certification is for two years.

Advanced Life Support Services: The capability to stabilize and transport patients suffering from life-threatening physiological and psychological conditions, using appropriate invasive and non-invasive medical procedures. *AS.18-.08.090 (7)* defines the invasive medical procedures of advanced life support as “emergency care techniques provided under the written and oral orders of a physician which may include, but are not limited to, electric cardiac defibrillation, administration of antiarrhythmic agents, intravenous therapy, intramuscular therapy, or use of endotracheal intubation devices.”

Ambulance: A vehicle specifically designed or modified, equipped and maintained for use in providing BLS or ALS patient transportation.

Advanced Pediatric Life Support: A course developed by the American Academy of Pediatrics and the American College of Emergency Physicians.

Advanced Trauma Life Support: A 16-hour course developed by the Trauma Committee of the American College of Surgeons to train physicians in the immediate care of the trauma patient. ATLS certification is for four years.

Alaska Trauma Registry: A data collection system which compiles information on the circumstances, treatment, and outcome of all hospitalized injuries in Alaska, for the purpose of injury surveillance and trauma care assessment.

Basic Life Support Services: The capability to stabilize and transport patients suffering from life-threatening physiological and psychological conditions, without the use of medications or invasive medical procedures.

Basic Trauma Life Support: A two-day course, developed by the Alabama Chapter of the American College of Emergency Physicians, designed to teach the skills necessary for rapid assessment, resuscitation, packaging and transport of a trauma patient. The primary objectives are to teach the correct sequence of evaluation and the techniques of resuscitation and packaging of the patient.

Central Dispatch: A communications center for dispatching all public safety and emergency resources – police, fire and ambulance services – for coordinated emergency response.

Communications Reliability: The percentage of time a communications system, such as a radio or telephone system, is actually working when needed.

Community Health Aide: A permanent, local resident selected by a village council on the basis of his/her acceptability to village residents, reliability, and ability to gain patients' confidence; and trained by the Alaska Area Native Health Service or a Native Health Corporation to provide primary and emergency medical care to village residents. At least one CHA is employed by each Native community certified under the Alaska Native Land Claims Settlement Act. The CHA works under written standing orders and receives radio or phone consultation from medical supervisors. An Alternate CHA is designated to perform these duties in the absence of the CHA.

Cardiopulmonary Resuscitation: A technique of sustaining respiration and circulation artificially by a combination of orally or mechanically assisted breathing and precise, timed pressure on the sternum to alternately compress and allow the expansion of the chambers of the heart. There are different CPR

techniques for adults (one rescuer and two rescuers), children, and infants.

Critical Care Air Ambulance Service: A service that operates fixed-wing aircraft or helicopters appropriate for air medical operation and that provides emergency medical care and air transportation under the direct or indirect supervision of a physician medical director, within the skill levels of people trained at least to the MICP, PA-C, RN, CEN, MD, or DO. State-certification of critical care air ambulances is in accordance with 7 AAC 26.310-400. (See **Section 722.**)

Critical Incident Stress Debriefing: Certain events, or critical events, are particularly stressful and cause strong emotional reactions or the actual inability to function effectively at the scene or later. A debriefing provides a structured means for immediate crisis intervention in a confidential, non-threatening environment.

Defibrillator Technician: Emergency Trauma Technicians may be trained and certified as defibrillator technicians to use automated devices. Emergency Medical Technician Is trained and certified as defibrillator technicians may use either manual or automated devices. Defibrillator Technicians are required to have physician medical directors and should operate in locations with access to advanced cardiac life support, including endotracheal intubation and lidocaine.

Disaster Drill: An organized practice session which tests the local or regional disaster plan by simulating disaster conditions requiring patient diagnosis and treatment, and tests the readiness and coordination of all emergency response and public safety agencies charged in the disaster plan with specific responsibilities in time of disaster.

Disaster Medical Assistance Team: medical teams throughout the nation that can be mobilized on short notice and transported to major disaster sites. Team members become temporary employees of the U.S. government upon activation.

Do-Not-Resuscitate Order: A binding physician directive for the withholding of resuscitative measures for terminally ill persons.

DOT Standards : Standards recommended by the US Department of Transportation, National Highway Traffic Safety Administration.

Emergency Care Areas: Refers to the following critical care areas: trauma, including head, neck and spinal injuries, chest and abdominal injuries, extremity injuries, and amputations; cardiac; burns; near-drowning; hypothermia and frostbite; poisoning and overdoses; emergency childbirth; high-risk infant newborn resuscitation; pediatric emergencies; behavioral emergencies; victims of domestic violence, sexual assault, and child abuse; individuals of danger to self and others; dive emergencies (where appropriate); and diabetes and other medical emergencies.

EMS Communications System: The communications network and equipment, personnel and arrangements which provide the capability to notify the system of an emergency; mobilize and dispatch emergency responders and other resources; exchange information; transmit treatment advice; and in some areas, allow remote monitoring of vital indicators.

EMS Community Checklists : Standardized checklists developed and distributed by the EMS Section, Alaska Department of Health and Social Services, to facilitate evaluation of local, regional and statewide status of the EMS system, as compared to the goals listed in this planning guide. Checklists appropriate for each Community Level are available through the state or regional EMS offices.

EMS Coordinator : person designated by the local, regional or state agency designated as the lead agency for EMS systems development in that area, who works with EMS organizations, other emergency response agencies, hospitals and others to facilitate improvement and coordination of the EMS system.

EMS Council: A formally established and responsible entity representing both providers and consumers of emergency medical services which reviews, evaluates and advises on the provision of such services in a defined system's geographical area. In Alaska, EMS Councils function at local, sub-regional and state levels. At the regional level, the Councils have formed non-profit corporations and employ staff to plan, coordinate and implement development of EMS systems in their region.

EMS Medical Director: A physician responsible for providing overall medical direction and consultation for state or regional or local EMS programs. A local EMS Medical Director (or Advisor) also should provide medical direction of prehospital medical services and provide leadership in hospital emergency department operations. (See **Section 315.**)

EMS Regions: Alaska is divided into seven EMS regions (see **Section 140**). These regions reflect patient care flow patterns. Each region has an EMS director or coordinator designated by either an EMS Council which is an independent non-profit corporation, an organized Borough, or a non-profit Native Corporation. State grants for coordination and improvement of regional/sub-area EMS systems are provided through the EMS Section, ADHSS, which is charged with over-all coordination of the Alaska EMS System.

EMS Sub-Areas: Three of Alaska's seven EMS regions, Interior Region, Southeast Region, and Southern Region, are further divided into sub-areas, which reflect Native corporations or Borough boundaries (see **Section 140**). Most of these sub-areas also have EMS coordinators designated by the Native corporation or Borough entity recognized as the lead agency for EMS coordination in the sub-area. State grants for coordination and improvement of regional/sub-area EMS systems may be provided through the EMS Section, ADHSS, which is charged with over-all coordination of the Alaska EMS system.

Emergency Medical Technician I: An EMT I, as certified by the Alaska Department of Health and Social Services, has successfully completed a course, at least 120 hours in length, which incorporates the in-classroom objectives of the US Department of Transportation, National Standard EMT-Basic Training, excluding the use of automated external defibrillators and advanced airway devices. An EMT I provides basic life support such as splinting, hemorrhage control, oxygen therapy, suction and CPR. Under the direct or indirect authorization of a physician, an EMT I may assist with the administration of the patient's own epinephrine autoinjector, nitroglycerin, or hand held bronchodilator inhaler. The use of an automated external defibrillator requires separate certification as a Defibrillator Technician in Alaska.

Emergency Medical Technician II: The EMT II level exceeds the National Standards Training Program EMT-Intermediate, developed by the USDOT. The EMT-II class is at least 50 hours in length and prepares the student to initiate intravenous lines and administer fluids and certain medications. A person must have six months experience as an EMT-I in order to be certified as an EMT-II. Certification requires that the individual be under the sponsorship of a department approved physician medical director.

Emergency Medical Technician III: The EMT-III training program is designed to add basic cardiac care skills to those the EMT has learned already. Also included in the training program is the use of morphine, lidocaine, atropine, and epinephrine. The EMT-III training is at least 50 hours in length. Certification requires that the individual be under the sponsorship of a department approved physician medical director. A person must have six months experience as an EMT-II in order to be certified as an EMT-III.

EMT Instructor : EMT I Instructors certified by the Department of Health and Social Services must have a minimum of one year experience as an EMT I, score 90 percent or above on an EMT-I examination, and successfully complete a Department-approved EMT-Instructor course. Certified EMT-II or EMT-III Instructors must be approved by the Department based upon teaching experience and experience with EMT IIs and EMT IIIs. EMT-II and EMT-III Instructors must be physicians, RNs, physician assistants or mobile intensive care paramedics, and must pass exams.

Emergency Monitor : A designated person, who may be a trained volunteer, who monitors CB radio traffic to relay requests for emergency assistance to an appropriate emergency services dispatcher.

Emergency Room/Emergency Department: An emergency room is a separate, designated area of a hospital that contains or has available to it, appropriate equipment and space for adequate triage, diagnosis, initial stabilization and treatment of medical emergencies occurring outside the hospital, at all times. An emergency department has been further designated a separate department of the hospital by the medical staff and hospital and is under the

direction of a physician appointed as department chair.

Emergency Trauma Technician: This is a 44-hour course originally developed by the Public Safety Academy, and in recent years revised by the Southeast Region EMS Council, especially for workers at isolated high-risk occupation sites, which emphasizes emergency care for trauma victims, as well as medical communications and medevac preparations. The course exceeds the content found in the US Department of Transportation's First Responder Training Program. Emergency Trauma Technicians are not technically certified by the state of Alaska and therefore do not receive the limited immunity from liability conferred by AS 18.08.086.

Epidemiology: The study of the distribution and determinants of health-related states and events in populations, and the application of this study to control health problems.

Federal Emergency Management Agency: Responsibilities include assistance in all aspects of community planning, preparedness and response to the full range of likely disasters and emergencies, including recommendation for a presidential-declared disaster area and administration of disaster funds. Provides a range of expertise and administrative skills in community preparedness planning via state emergency offices.

First Aid Courses: the American Red Cross, through its certified instructors, offers several courses for the general public. Current offerings include:

***Insert updated course list from ARC

Regional councils provide other courses such as Mariner's First Aid and Emergency First Aid.

First Responder: An employee, such as a public safety officer or fire fighter, or a volunteer who is trained to provide advanced first aid or injury management to victims of medical emergencies prior to the arrival of an ambulance or other BLS/ALS services. Designated *citizen first responders* may be included in the formal emergency response system by radio or telephone dispatching procedures, and a program of continuing education.

Incident Command System: A combination of facilities, equipment, personnel, procedures, and communication operating within a common organizational structure responsible for management of assigned resources to effectively direct and control the response. Intended to expand or contract as situation requires without a new, reorganized command structure.

Injury: Damage to tissue caused by the exchange of kinetic, thermal, chemical, electrical or radiation energy at levels intolerable to tissue, or the deprivation of oxygen due to suffocation.

Injury Control: An organized effort to prevent injuries or to minimize their severity.

Intentional Injury: An injury which is determined to have been purposely inflicted, either to oneself or another.

International Classification of Diseases Codes: A classification of the nature of illness or injuries (N-Codes), and external cause of injuries (E-codes), developed by the World Health Organization.

Levels of Community: A planning concept originally developed for the Alaska State Health Plan and revised by DHSS health planners and researchers. In the EMS model, communities are categorized according to population, type of health services and access. Communities are categorized within a regional system which provides a continuum of service and referral patterns.

Medevac: The air transportation of an ill or injured person to a medical facility, usually from an isolated setting or over an extremely long distance, where standard ground ambulance transportation is not possible and/or advisable, with personnel trained to at least the EMT-I level.

Medevac Escort Training: Medevac escort training courses approved by the Alaska Department of Health and Social Services cover—such topics as planning for medevac; aircraft and equipment considerations; physiological aspects of pressure and the atmosphere; supporting activities; lifting, moving and in-flight patient care; medical equipment; environmental factors; dealing with changes in flight; and aircraft emergencies. These course requirements are detailed in 7 AAC 26.310-7

AAC26.400 and are covered in the series of training manuals, *Aeromedical Evacuations in Alaska*. (See **Section 722**.)

Medical Audit: A periodic review of an ambulance service's run reports, or an emergency care provider's patient records, by a supervising physician to determine if the care was appropriate and if standing orders were followed; possible problem areas; need for further training or practice, etc. Also known as a run review.

Medical Direction: An organized capability to give direct instructions by radio or telephone, as well as through standing orders, by a designated physician to allied health professionals providing pre- or inter-hospital care to critical emergency medical or trauma patients. This includes, but is limited to: initial training and continuing education; definition and refinement of standing orders; actual communication with out-of-hospital personnel; and coordination of patient care with medical professionals to whom the patient is referred under emergency conditions.

Mid-Level Practitioner: A physician assistant, nurse practitioner or other highly trained person who is licensed to carry out certain primary care medical functions under the sponsorship or direction of a physician.

Mobile Intensive Care Paramedic: A MICP, as licensed by the State Medical Board, must have successfully completed a Board-approved course equivalent to the US Department of Transportation's National Training Course/Emergency Medical Technician Paramedic; must pass the National Registry of Emergency Medical Technicians written and practical examinations for EMT-P; and must work under standing orders of a sponsoring physician. The MICP may, under verbal or standing orders, perform cardiopulmonary resuscitation and defibrillation; initiate and maintain intravenous routes using approved intravenous techniques and solutions; perform pulmonary ventilation by approved methods; perform gastric suction by intubation; obtain blood for laboratory analysis; apply rotating tourniquets; administer parenterally, orally or topically any approved agents or solutions; and perform other emergency procedures authorized by a supervising physician.

Mobile Intensive Care Units: Ambulances with appropriate equipment (including a defibrillator) and drugs for pre-hospital treatment of acute coronary patients and other medical and trauma patients, with advanced life support measures.

Morbidity: The state of being diseased or injured. Morbidity rate is the number of cases of a disease or injury found to occur in a stated population size.

Mortality Rate: The incidence of death in a population in a given period.

Mutual Aid Agreements: Formal written arrangements among EMS providers within an EMS system or within systems serving neighboring areas for the provision of emergency medical services on a reciprocal basis, where access to these services would be more appropriate and effective in terms of time, distance and availability.

911: A universal emergency access telephone number for contacting police, fire and medical agencies; recommended by the federal government, and used extensively throughout the United States, including many Alaska communities.

911 Enhanced System: An advanced version of the 911 universal emergency telephone service; features include automatic number identification, automatic call location identification, and automatic ring-back. Refer to as 911-E.

Nurse Practitioner: A professional registered nurse who is prepared, through an organized program of continuing education which includes theory and clinical practice, to work as a co-professional with the physician in the delivery of primary health care. Nurse practitioners are responsible for their practice by virtue of their license.

Pediatric Advanced Life Support: Course developed by the American Heart Association and the American Academy of Pediatrics.

Physician Assistant: A graduate of a Physician Assistant Program accredited by the AMA Committee on Allied Health Education who has had training and supervised experience directed toward primary care and emergent morbidity conditions and related medical procedures. PAs

in Alaska practice under the direct or indirect supervision of a licensed physician who accepts responsibility and liability for the PA's practice.

Physician Medical Director: An MD or DO who authorizes Emergency Medical Technicians or Mobile Intensive Care Paramedics to provide out-of-hospital advanced life support in accordance with Alaska statutes. The specific responsibilities of Physician Medical Directors vary with the EMT certification levels and can be found in the state regulations, defined *under 7 ACC 26.610-7 AAC 26.700*.

Prehospital Care: Medical care given at the scene or during transport to a health care facility.

Prehospital Trauma Life Support A 17-hour course developed by the National Association of Emergency Medical Technicians in cooperation with the American College of surgeon" Committee on Trauma (Prehospital Care Subcommittee), to provide focus for advanced level prehospital care personnel (EMT-II or above) in the latest philosophy and techniques in managing the trauma patient. Especially suitable for prehospital services close to a hospital, where rapid stabilization and transport is possible.

Protocol: A structured, written document describing a specific method of management.

Quality Assurance: A means of measuring the quality of care provided by comparing actual care with predetermined standards.

Quality Improvement: A means of improving the quality of care provided by comparing actual care with predetermined standards and implementing a plan to reduce performance below the standards.

Specialty Air Medical Transport Team: The third level of air medical services.

State Health Plan: A plan developed by the Department of Health and Social Services. It focuses on planning a statewide system of health facilities, personnel and services sufficient to assure access to high quality preventive, therapeutic and rehabilitative measures in achieving high level wellness for social and individual fulfillment.

Transfer: Usually refers to the transfer of a patient from one medical facility to another

which offers the most adequate and appropriate level of care available to effect the maximum recovery of the patient. A Transfer Guideline is a written plan, developed by physicians and agreed to as standard medical procedure, which identifies criteria for determining who should be transferred; appropriate referral facilities; procedures for arranging transfer; and appropriate treatment before and during transfer for specific types of patients.

Transport/Transportation: A service element of the EMS system that includes BLS or ALS ground, air or water transportation services for a specific service area. In Alaska's roadless areas, patient transportation often relies on commercial air services not set up primarily for patient transport.

Trauma Center: Centers established to provide standards for treatment of critically injured patients. There are four levels of trauma service centers:

1. Specialty Trauma Referral Center, Level One Trauma Service Centers,
2. Regional Trauma Center, Level II Trauma Service Centers,
3. Area Trauma Center, Level III Trauma Centers, and
4. Local Trauma Stabilization Center, Level IV Trauma Center.

Treatment Guidelines: Written uniform treatment and care plans for emergency and critical patients, approved and signed by appropriate physicians and/or medical groups. Also known as medical protocols or standing orders.

Unintentional Injury: An injury which has occurred without anyone intending that harm be done.

Village Public Safety Officer: Trained and supervised by the Department of Public Safety, VPSOs provide law enforcement, fire fighting, emergency trauma treatment, water safety education and enforcement, and search and rescue coordination for the villages in which they reside.

Years of Productive Life Lost: the number of years a person died before reaching age 65.

720 Resources & References

This section contains available state EMS resources and references. The items in **Sections 721 and 722** are available through the State EMS Office as well as many of the regional EMS offices. For assistance, contact the Emergency Medical Services Section, Division of Public Health, Alaska Department of Health & Social Services, PO BOX 110616, Juneau, AK 99811-0616; 907-465-3027. The documents in **Section 723** are available from the regional office listed for each document.

721 General

Alaska EMS Directory – Lists all key EMS officials, regional offices, ambulance services, emergency medical services, hospitals, clinics, EMS training agencies in the state, and special emergency response agencies. Updated annually.

Alaska EMS Goals – A guide for developing Alaska's EMS system. This state EMS plan provides a comprehensive overview of EMS in Alaska and includes specific community recommendations.

Alaska Injury Prevention Plan – A document addressing morbidity and mortality as a result of intentional and unintentional injuries. Actions are recommended to reduce these injuries.

Alaska Medevac Manual – A booklet with suggestions and guidelines aimed at rural, air medevacs but with applications for almost any type of emergency transport. Cost: \$20.

Alaska Medevac Transport Form – A multi-copy report form incorporating all the minimum data recommended in these guidelines (see **Section 743**). Available free in quantity.

Alaska Prehospital Patient Report Form – A multiple copy report form for ambulance services that do not have a form (see **Section 742**).

Alaska Rehabilitation Guide – A listing of resources available for the trauma care patient.

Alaska Trauma Care System Plan – An implementation plan for improving the comprehensiveness of the state trauma care system.

Alaska Trauma Registry – A brochure describing the trauma care system, the trauma registry, trauma patient care reports, and injury prevention and control.

EMS Annual Report to the Legislature – A summary of activities of the statewide EMS program.

EMS Billing Workbook – Step-by-step pamphlet detailing the basics of establishing an EMS billing system.

EMT Student Guide – Short pamphlet with suggestions for taking the written EMT examination for certification.

Emergency Response Guidebook – USDOT publication for first response to hazardous materials incidents.

Family Resource Guide – A booklet for families who have children with special needs.

Help Along the Way – A brochure with map, service boundaries and telephone or radio numbers of all ambulance services along the major land and marine highways. Updated annually. Available free in quantity.

RESPONSE: EMS ALASKA – A quarterly newsletter. Subscription free.

Two-year Profile of Serious Injury in Alaska – A complete analysis of hospitalized and fatal injury in Alaska for 1991 and 1992.

722 Alaska EMS Legislation & Regulations

- *Summary of EMS-Related Legislation in the State of Alaska* – Updated annually.
- **Vaccination Program for Volunteer Emergency Personnel** – AS 18.15.250.
- **Alaska Regulations for Certification of EMT Is, IIs, IIIs and EMT Instructors** – 7 AAC 26.010 – 7 AAC 26.170.
- **Alaska Regulations for Mobile Intensive Care Paramedics** – 12 AAC 40.300 – 12 AAC 40.390.

- **Alaska Regulations for Emergency Medical Services Outside Hospitals** – 7 AAC 26.210 – 7 AAC 26.290 (for ambulance services).
- **Alaska Regulations for Emergency Vehicle Operations** – 13 AAC 02. and 13 AAC 04.
- **Alaska Regulations for Emergency Trauma Technicians Instructors and Approved Emergency Trauma Technician training courses** – 7 AAC 26.410 – 7 AAC 26.490.
- **Alaska Regulations for Defibrillator Technicians and Approved Training Courses** – 7 AAC 26.510 – 7 AAC 26.590.
- **Alaska Regulations for Medevac Services, Air Ambulance Services and Specialty Aeromedical Transport Teams Outside Hospitals** – 7 AAC 26.310 – 7 AAC 26.390.
- **Alaska Regulations for Responsibilities of Medical Directors** – 7 AAC 26.610 – 7 AAC 26.700.
- **Alaska Regulations for Trauma Centers and Trauma Registry** – 7 AAC 26.710 – 7 AAC 745.
- **Alaska Regulations for Emergency Medical Dispatchers** – 7 AAC 810 – 840.
- **Definitions** – 7 AAC 26.999

723 State Guidelines

Division of Public Health, Alaska Department of Health & Social Services

- *Alaska Burn Protocol*, 1992 by EMS Section
- *Alaska Hypothermia and Cold Water Near Drowning Guidelines*, 1989 by EMS Section
- *Alaska Medevac Manual*, Second Edition, 1993
- *Alaska Prehospital Trauma Guidelines*, 1995 by EMS Section
- *Alaska Trauma Triage, Transport & Transfer Guidelines*, 1995 by EMS Section
- *High Risk Infant Transport Manual*, revised 1981 by Alaska Newborn Project
- *Mass Casualty Protocol*, revised 1996 by EMS Section
- *Maternal Transport Manual*, 1981 by Alaska Newborn Project
- *Protocol for Emergency Medical Response for Mass Casualty Incidents*, revised 1995 by EMS Section

724 National Guidelines

Agency for Toxic Substances and Disease Registry

- *Managing Hazardous Material Incidents – Volume 1, EMS: A Planning Guide for the Management Contaminated Patients*
- *Managing Hazardous Material Incidents – Volume 2, Hospital Emergency Department: A Planning Guide for the Management of Contaminated Patients*
- *Managing Hazardous Materials Incidents – Volume 3, Medical Management Guidelines for Acute Chemical Exposures*

American Association of Poison Control Centers

- *Criteria for Hospital Resources for Care of Patients with Burn Injuries*

American College of Emergency Physicians

- *Emergency Medical Directors*
- *Principles of EMS Systems*
- *Trauma Systems*

American College of Surgeons

- *Essential Ambulance Equipment*
- *Hospital Emergency Department Guidelines*
- *Hospital Resources for Care of Injured Patients*

American Heart Association

- *Standards and Guidelines for CPR and Emergency Cardiac Care*
- *Standards for Emergency Cardiac Care in Advanced Life Support Unit*

American Hospital Association, Joint Committee on Accreditation

- *Guidelines and Criteria for Hospital Emergency Department Capabilities*

American Medical Association, Commission on Emergency Medical Services

- *Proposed Guidelines for Categorization of Hospital Emergency Capabilities*

Committee on Perinatal Health

- *Recommendations for the Regional Development of Maternal and Perinatal Health Services*

Emergency Department Nurses Association

- *Standards for Emergency Nursing Practice*

Occupational Safety and Health Administration (OSHA)

- *Standards for Medical and First Aid*

United States Department of Transportation, National Highway Traffic Safety Administration (NHTSA)

- *Standards for Prehospital EMS Relating to Highway Safety Programs*
- *Federal Specifications for Ambulances (KKK.A-1822)*
- *Curriculum Standards for Basic EMT, EMT Refresher, EMT-Paramedic, Extrication, Dispatcher, Emergency Vehicle Operation*
- *Air Ambulance Guidelines*

United States Department of Transportation, Research and Special Programs Administration, Office of Hazardous Materials Transportation

- *1993 Emergency Response Guidebook*

725 State Materials Distributed by Regional EMS Offices**Southern Region EMS Council, Incorporated**
6130 Tuttle Place, Anchorage, AK 99507; (907) 562-6449

- *Aeromedical Evacuations in Alaska* – A set of two manuals to help medevac escorts, air ambulance personnel, and physicians involved in arranging for transfer of emergency medical patients by air to definitive medical care. Includes: *An Escort Training Manual, Third Edition*; and *Instructors Guide, Third Edition*.
- *Lifelines* – Published five times a year

Southeast Regional EMS Council, Incorporated

207 Moller Drive, Room 113, Sitka, AK 99835;
(907) 747-8005

- *BLS Treatment Guidelines* booklet
- *Cold Water Winners* – An educational resource packet for parents, teachers, youth leaders, and safety personnel to teach non-swimming cold water safety, survival and rescue skills, for ages eight through twelve.
- *Emergency Trauma Technician Manual*
- *ETT Instructor Manual*
- *EMS Quarterly* – regional newsletter

730 Recommended EMS Equipment & Supplies

- ◆ **731 First Responders**
 - **731.1 Trauma Kit**
 - **731.2 Extrication Kit**
 - **731.3 Hazardous Materials Equipment**
- ◆ **732 Ambulance Services**
 - **732.1 Basic Life Support (BLS) Ambulance Services – EMT-I Level & Above**
 - **732.2 Advanced Life Support (ALS) Ambulance Services – EMT-II Level & Above**
 - **732.3 Advanced Life Support (ALS) Ambulance Services – EMT-III Level & Above**
 - **732.4 Advanced Life Support (ALS) Ambulance Services – Paramedic**
 - **732.5 Heavy Rescue Ambulance Services**
 - **732.6 Pediatric Ambulance Equipment List**
 - **732.7 Hazardous Materials Equipment**
- ◆ **733 Air Transport Services**
 - **733.1 Basic Equipment**
 - **733.2 Basic Life Support Kit**
 - **733.3 Adult Kits**
 - **733.4 Pediatric Kits**
 - **733.5 Specialty Kits (OB, Trauma, Burn)**
 - **733.5 Hazardous Materials**
- ◆ **734 Clinics**

- **734.1 Level I Community Clinics**
- **734.2 Level II Community Clinics**
- **734.3 Hazardous Materials Equipment**
- ♦ **735 Hospitals**
 - **735.1 Hazardous Materials Equipment**
- ♦ **736 Communications**
 - **736.1 Basic Communications**
- ♦ **737 Pre-Stocked Disaster Supplies**
 - **737.1 Level I Communities**
 - **737.2 Level II, III & IV Communities**
 - **737.3 Level III & IV Airports**
- ♦ **738 Remote Sites**
 - **738.1 High-Risk Work Sites**

731 First Responders

731.1 First Responder Trauma Kit

- a. Blood pressure cuff
- b. Stethoscope
- c. Penlight
- d. Full arm splint (inflatable, wire ladder, or cardboard)
- e. Full leg splint (inflatable, wire ladder, or cardboard)
- f. Bandage scissors
- g. Ring cutter
- h. Pocket mask with O₂ inlet
- i. Kling or Kerlix, 4 inch, five
- j. Kling or Kerlix, 2 inch, five
- k. Multi-trauma dressings, two
- l. 4"x4" gauze, 20
- m. Triangular bandages, five
- n. Reflective heat or space blanket
- o. Thermometer, regular and low reading
- p. Activated charcoal in suspension
- q. Source of calories for diabetic emergencies
- r. Examination gloves, at least 5 pairs
- s. Set of oropharyngeal airways, sizes 0-6
- t. Patient report forms
- u. Set umbilical clamps
- v. Bulb syringe
- w. Wool blankets, several
- x. 2 inch tape
- y. Rigid cervical collars, assorted sizes
- z. Occlusive dressing

731.2 First Responder Extrication Kit

- a. Road flares
- b. Wrench, 12 inch adjustable crescent
- c. Screwdriver, 12 inch flat head

- d. Screwdriver, 8 inch Phillips head
- e. Hacksaw, 12 inch blade, 18 teeth per inch, oil can with light grade oil
- f. Pliers, 12 inch vice grip
- g. Hammer, five pound, 12 inch or 15 inch handle
- h. Fire axe, 24 inch handle, combination acceptable
- i. Crowbar, 51 inch pinchpoint
- j. Bolt cutter, 9/15 inch opening
- k. Ropes, tensile strength 5,400 pounds in protective bag
- l. Hard hat – ANSI Z 89.1, one per occupant
- m. Safety goggles – ANSI Z 37.1
- n. Blanket, large heavy one for warmth and for patient protection during extrication
- o. Mastic knife
- p. Bale hooks, two
- q. Spring-loaded center punch
- r. Gauntlet leather gloves, one pair per rescuer
- s. Pruning saw, heavy duty
- t. Fire extinguisher, dry chemical

731.3 Hazardous Materials Response

- a. United States DOT Emergency Response Guidebook
- b. Binoculars (for use in conjunction with the *USDOT Guidebook*)

732 Ambulance Services

732.1 Basic Life Support (BLS) Ambulance Services

732.11 Ventilation and Airway Equipment

- a. Portable suction apparatus: wide-bore tubing, rigid pharyngeal curved suction tip, Yankauer
- b. Portable and fixed oxygen equipment: variable flow regulator, humidifier (on fixed equipment)
- c. Oxygen administration equipment: adequate length tubing, masks (adult, child and infant sizes, transparent, non-rebreathing, Venturi and valveless, nasal prongs)
- d. Bag-valve-mask: hand operated, self re-expanding bag (adult and infant sizes, FiO₂ equal to or greater than 0.85), O₂ port and oxygen reservoir (FiO₂, 0.9), clear mask (adult, child and infant sizes), valve (clear, easily cleanable or disposable, operable in cold weather)
- e. Pocket mask with O₂ port
- f. Demand valve type respirator (optional)

- g. Airways: nasopharyngeal, oropharyngeal (adult, child and infant sizes), water soluble lubricant

732.12 Immobilization Devices (splints)

- a. Traction (2 adult, 1 or 2 pediatric): lower extremity, limb support slings, padded ankle hitch, padded pelvic support, traction strap
- b. Extremity immobilization devices: rigid support, appropriate material (cardboard, metal, vacuum, pneumatic, wood, plastic, etc.)
- c. Backboards (2 long, 2 short or equivalent, and scoop stretcher) hand holds for moving patient, short (extrication – head to pelvis length), long (transport – head to feet)
- d. Cervical Collars (assorted sizes)
- e. Head immobilization devices (commercial or improvised)
- f. Strapping materials
- g. 2" tape

732.13 Bandages

- a. Burn sheets: two clean (not sterile)
- b. Triangle bandages with three safety pins each
- c. Dressings, large and small
- d. Roller (soft), 4" or larger
- e. Non-sterile roller (elastic), 4" or larger
- f. Occlusive dressing, 3" x 8" or larger
- g. Adhesive tape, 2" or larger, assorted sizes
- h. Multi-trauma dressings

732.14 Pneumatic Anti-shock Garment (PASG)

- a. Compartmentalized (legs and abdomen separate), stopcocks for each section, inflation pump, lower leg to lower rib cage

732.15 Obstetrical (separate sterile kit)

- a. Kit (towels, 4" x 4" dressing, umbilical tape type, clamps for cord, disposable scalpel, several pair of gloves, blanket, sanitary napkins, DeLee suction device with trap)
- b. Reflective heat blanket
- c. Extra receiving blanket, head cover, towels for baby
- d. Absorbent pads and draping materials

732.16 Miscellaneous

- a. Universal precaution kit
- b. Sphygmomanometers, large, adult and pediatric
- c. Stethoscope

- d. Heavy bandage scissors for cutting clothing, belts, boots, etc.
- e. Container for medical wastes
- f. Flashlight
- g. Irrigating solution
- h. Source of calories for treating diabetic patients
- i. Hypothermia & fever thermometers
- j. Hot packs
- k. Cold packs
- l. Activated charcoal in suspension
- m. Syrup of ipecac
- n. Kleenex
- o. Towels
- p. Washcloths
- q. Blankets, wool
- r. Sheets
- s. Pillows
- t. Pillow cases
- u. Disposable emesis basins
- v. Bed pan
- w. Wheeled ambulance cot (gurney)
- x. Stair chair (if ambulance cot does not fold into stair chair)
- y. Self-contained breathing apparatus, NIOSH or NFPA approved
- z. Report forms
- aa. Triage tags
- bb. Spray cleaner/disinfectant
- cc. Waterless hand cleaner
- dd. Gloves, assorted.

732.17 Extrication

- a. Road flares
- b. Wrench, 12 inch adjustable crescent
- c. Screwdriver, 12 inch flat head
- d. Screwdriver, 8 inch Phillips head
- e. Hacksaw, 12 inch blade, 18 teeth per inch, oil can with light grade oil
- f. Pliers, 12 inch vice grip
- g. Hammer, five pound, 12 inch or 15 inch handle
- h. Fire axe, 24 inch handle, combination acceptable
- i. Wrecking bar, 24 inch handle
- j. Crowbar, 51 inch pinchpoint
- k. Bolt cutter, 9/16 inch opening
- l. Shovel, 49 inch pointed blade or folding heavy-duty entrenching tool
- m. Tin snip, double action
- n. Ropes, 50' (tensile strength 5,400 pounds in protective bag)
- o. Hard hat – ANSI Z 89.1, one per occupant
- p. Safety goggles – ANSI Z 37.1

- q. Blanket, large heavy, flame proof, for patient protection during extrication
- r. Heavy knife
- s. Bale hooks, two
- t. Spring-loaded center punch
- u. Gauntlet leather gloves, one pair per rescuer
- v. Pruning saw, heavy duty
- w. Fire extinguisher, dry chemical

732.2 Advanced Life Support Ambulance Services – EMT-II Level & Above

For the EMT-II provider, all the equipment and supplies for the EMT-I as listed in the preceding section, plus the following equipment and supplies, only as authorized by written medical standing orders signed by Physician Medical Director.

732.21 Intravenous Administration Equipment

- a. Crystalloid solutions
- b. 5 percent dextrose in water
- c. Micro- and macro-intravenous administration set, 3 each
- d. Intravenous catheter with needle, 20, 18, 16, 14 gauge, shortest possible length for larger bore catheters; six each
- e. Tourniquet
- f. Antiseptic solution
- g. IV pole or roof hook
- h. Sharps container
- i. Tape
- j. 2" x 2" gauze
- k. Blood tubes
- l. Syringes, assorted
- m. Needles, assorted

732.22 Airway

Advanced airway device specified in service's physician signed standing orders, and all equipment necessary to use device properly, e.g., laryngoscope with assortment of blades, endotracheal tubes, and 10 cc syringes.

732.23 Drugs

Drugs should be pre-loaded. Drugs used on ALS units should be compatible with the standards set by the American Heart Association's Emergency Cardiac Care Committee.

- a. Naloxone HCl
- b. 50 percent dextrose in water

732.3 ALS Ambulance Services – EMT-III Level

For the EMT-III provider, all the equipment, drugs and supplies for the EMT-I and EMT-II as listed above, plus the following equipment and supplies, only as authorized by written medical standing orders signed by Medical Director.

732.31 Cardiac

- a. Monitor/defibrillator, with strip recorder
- b. Defibrillator pads
- c. Quick look paddles
- d. ECG leads
- e. Chest attachment pads
- f. Conductive gel

732.32 Drugs

These should be pre-loaded.

- a. Lidocaine
- b. Morphine
- c. Epinephrine 1:1,000
- d. Epinephrine 1:10,000
- e. Atropine

732.4 Advanced Life Support (ALS) Ambulance Services – Paramedic Level

For the EMT-P provider, all the equipment, drugs and supplies for the EMT I, II, and III as listed in the preceding sections, plus the following drugs, only as authorized by written medical standing orders signed by Physician Medical Director.

732.41 Drugs

- a. Crystalloid solution
- b. 5 percent dextrose in water, various sizes
- c. Nitrate
- d. Vasopressor
- e. Diuretic
- f. Analgesic
- g. Acid/Base buffer
- h. Opiate antagonist
- i. Cardiac Inotrope
- j. Cardiac Chronotrope, sympathomimetic
- k. Cardiac Chronotrope, anticholinergic
- l. Group 1B Antiarrhythmic
- m. Group III Antiarrhythmic
- n. 50 percent dextrose
- o. Tranquilizer
- p. Natural catecholamine
- q. Dopaminergic

732.42 Equipment

- a. Pulse oximeter
- b. Cardiac monitor and defibrillator

735.5 Heavy Rescue Ambulance Services

The following additional equipment should be available either on the primary response vehicle or on a heavy rescue vehicle with a maximum response time of 10 minutes. Local extrication needs may necessitate additional equipment and the associated specialized training (scuba gear for water rescue; aerial rescue gear for tall buildings; mountain rescue equipment, etc.).

732.51 Equipment

- a. Hydraulic jack/spreader combination, 2 to 4 ton minimal
- b. 2x4 wood, various lengths for shoring
- c. Two ropes, 150' each, 5/8" Kernmantle construction, maximum 2 percent stretch factor, 11,000 lbs. Minimum tensile strength (must be carried in a protective bag)
- d. Swiss seat
- e. Carabineers, locking type, minimum rod stock 10 mm (minimum 10)
- f. Stokes basket
- g. Come-along, minimum 5 ton with break-away handle
- h. Chain (15') with a grab hook and a running hook
- i. Air-cutting gun kit, minimum generating pressure 90 PSI, with cylinders and chisels
- j. Hydraulic truck jack, minimum 4 tons
- k. Rappelling harness, one per rescuer
- l. Wheel chocks

732.6 Pediatric Ambulance Equipment

The following lists were developed by the Alaska EMS for Children Project. **Section 732.61** shows suggested equipment for BLS services. **Section 732.62** shows suggested equipment for ALS services. Italicized items are optional.

732.61 BLS Pediatric Ambulance Equipment

- a. Infant bag valve/mask
- b. Neonatal-Infant masks
- c. Pediatric bag valve/mask
- d. Pediatric masks, 2 sizes
- e. Pediatric non-rebreather mask
- f. Child nasal cannula
- g. Asst. oral airways, 00-3
- h. Bulb syringe
- i. DeLee suction trap, 10 Fr.
- j. Rigid suction tips, Yankauer
- k. Pediatric stethoscope
- l. Blood pressure cuffs, infant/child
- m. Blood pressure cuffs, newborn

- n. Water-soluble lubricant, Lubafax
- o. Cardboard splints, 12" x 18"
- p. Triangular bandages
- q. Traction splint, pediatric
- r. Pneumatic antishock garment, pediatric
- s. Rigid cervical collars, pedi set
- t. Extrication device, KED/Short board
- u. Silver swaddler
- v. Cord clamps
- w. OB kit
- x. Child backboard
- y. Spider straps
- z. Infant seat
- aa. Ipecac

732.62 ALS Pediatric Ambulance Equipment

- a. Infant bag valve/mask
- b. Neonatal-Infant masks
- c. Pediatric bag valve/mask
- d. Pediatric masks, 2 sizes
- e. Pediatric non-rebreather mask
- f. Child nasal cannula
- g. Asst. oral airways, 00-3
- h. endotracheal tubes, 2.5-6.0
- i. Intubation stylet, 6 Fr.
- j. Laryngoscope blades: 0, 1, 2, straight
- k. Laryngoscope blade, 2 curved
- l. Pediatric McGill forceps
- m. Bulb syringe
- n. DeLee suction trap, 10 Fr.
- o. Suction catheters: 6, 8, and 10 Fr.
- p. Rigid suction tip, Yankauer
- q. Pediatric stethoscope
- r. Blood pressure cuffs, infant/child
- s. Blood pressure cuffs (newborn)
- t. Volume control IV tubing, e.g. Buritrol, Volutrol
- u. Over-the-needle catheter, 18-24 gauge
- v. Butterflies, 19-23 gauge
- w. Tourniquets, infant-child
- x. Intraosseous needles, 15-18 gauge
- y. Syringes: 1, 3, 12, 35, 50 cc
- z. Blood tubes (pediatric)
- aa. Blood glucose chemstrips
- bb. Alcohol preps
- cc. Betadine swabs
- dd. Water-soluble lubricant, Lubafax
- ee. Lidocaine ointment
- ff. Pediatric defibrillator paddles
- gg. Pediatric electrodes
- hh. Cardboard splints, 12" x 18"
- ii. Triangular bandages
- jj. Traction splint, pediatric
- kk. Pneumatic antishock garment, pediatric
- ll. Rigid cervical collars, pediatric set
- mm. Extrication device, KED/Short board

- nn. Silver swaddler
- oo. Cord clamps
- pp. OB kit
- qq. NG tube, 10 and 12 Fr.
- rr. Feeding tube, 8 Fr.
- ss. Meconium aspirator (attach to ET tube)
- tt. Epinephrine 1:10,000, pediatric dose pkg.
- uu. Atropine, pedi dose pkg.
- vv. D25 glucose, pedi dose pkg.
- ww. Pediatric medication dosage chart
- xx. Child backboard
- yy. Spider straps
- zz. Infant seat
- aaa. Ipecac
- bbb. Ringer's lactate
- ccc. Disposable scalpel with blade

732.7 Hazardous Materials Decontamination

Equipment for EMS units is highly dependent on the role the unit has in the local emergency response plan. Recommendations given here are for the basics as well as for a more involved decontamination scenario.

732.71 Equipment for Most Circumstances

- a. Polyethylene sheeting (.006 ml) for draping ambulance and/or patient
- b. Duct tape
- c. Chemical resistant splash goggles
- d. Chemical gloves with a minimum 15" to 18" gauntlet
- e. Inner gloves
- f. Tyvek-Saranex hooded chemical resistant suit
- g. Nuke style overboots
- h. *United States DOT Emergency Response Guidebook*
- i. Binoculars (for use in conjunction with the *USDOT Guidebook*)
- j. *NIOSH Pocket Guide to Chemical Hazards*
- k. Reference for information about chemical exposure to the patient (*Hazardous Materials Exposure from Brady, First Aid Manual for Chemical Accident* by Lefevre, or *Emergency Care for Hazardous Materials Exposure* by Bronstein & Currance)
- l. Disposable sheets
- m. Disposable patient garments or blankets
- n. Plastic trash bags for contaminated items
- o. Inexpensive devices such as stethoscopes, blood pressure cuffs, etc. to be used when personnel do not want to expose their personal devices

732.72 Equipment for Heavy or Corrosive contamination

The equipment listed will **not** allow EMS personnel to work in the warm zone in a decontamination corridor. Working in a warm zone requires specialized training and equipment. Both the SCBA and respirator (items a and b below) require training, fit testing, and medical checks of personnel to ensure that they are fit to wear both.

- a. Positive-pressure self-contained breathing apparatus (SCBA)
- b. Full-face mask respirator with appropriate cartridges
- c. Gurney cover with water containment device in the event that continuous patient flushing is required

733 Air Transport Services

The following sections outline lists of suggested equipment for use in the aeromedical environment. When reviewing the lists, it is important to note that they suggest the minimum equipment which should be available for a specific purpose (for instance, basic care, airway maintenance, burns), and that many aeromedical services will carry much more than the minimum.

Most of the lists contain generic descriptions of the devices suggested, such as a suction device. It is purposely left to individual services to determine which of the many devices could best perform a certain function, given the limitations of space, weight, funding, etc.

It is recommended that individuals with questions concerning the appropriateness of a particular device contact a Medevac Instructor and other aeromedical services, within and outside of Alaska.

733.1 Basic Equipment

- a. Pneumatic antishock garment (PASG)
- b. Oxygen
- c. Stretcher/backboard
- d. Blankets

733.2 Basic Life Support Kit

- a. Hand operated suction device (V-Vac)
- b. Oral airways (4 sizes)
- c. Pocket mask with one-way valve

- d. Bag-valve-mask (ambu bag), pediatric and adult
- e. BP cuff, pediatric and adult
- f. Stethoscope
- g. Flashlight
- h. Kerlix roll
- i. Kling roll
- j. 4 x 4 gauze, 10
- k. Multi-trauma dressing
- l. Band-aids, assorted
- m. Triangle bandage, 5
- n. Ace wraps, 3" & 4"
- o. Non-sterile gloves
- p. Scissors
- q. Hemostats
- r. Tape, several sizes
- s. Thermometer, regular and hypothermic
- t. KY jelly packet
- u. Xeroform or other occlusive dressing
- v. Cervical collars, all sizes
- w. Plastic trash bags
- x. Large safety pins, 5

733.3 Adult Kits

733.31 Adult Advanced Airway Kit

- a. Hand-held suction device (V-Vac, suction bulb)
- b. 14 Fr. Suction catheter kits, 4
- c. Yankauer, 2
- d. Suction connecting tubing
- e. 5.5 ET tube, cuffed
- f. 6.0 ET tube, cuffed
- g. 7.0 ET tube, cuffed
- h. 7.5 ET tube, cuffed, 2
- i. 8.0 ET tube, cuffed
- j. Stylet, 14 Fr.
- k. Gloves, 4
- l. Heimlich valve, 2
- m. Nasal cannula, adult
- n. Non-rebreather mask
- o. Nebulizer
- p. O₂ connecting tubing
- q. Ambu with face mask
- r. O₂ connecting tubing for ambu
- s. Adhesive tape 2"
- t. O₂ X-Mas tree
- u. Albuterol UD nebulizer, 2
- v. NS gavage, 5
- w. Adult oral airways (medium & large)
- x. Intubation handle, adult
- y. Mac 3, adult blade
- z. Miller 3, adult blade
- aa. Miller 4, adult blade
- bb. 10 CC syringe

- cc. K-Y jelly, 2
- dd. Batteries for laryngoscope
- ee. Intubation blade bulb
- ff. Trocar 28 ga
- gg. Trocar 32 ga
- hh. Suture; silk
- ii. #11 blade, handle (scalpel)
- jj. Oximeter
- kk. Magill forceps
- ll. Kelly clamp
- mm. 2 percent Lidocaine 30 cc, 2

733.32 Adult Emergency Medication Kit

- a. Atropine sulfate pre-filled syringes, 2
- b. Bretylium tosylate, 4
- c. Dextrose, 25 mg/50 ml pre-filled syringes, 2
- d. Dopamine 40 mg/ml 5 ml amps, 5
- e. Epinephrine 1:1,000 ampules, 4
- f. Epinephrine 1:10,000, pre-filled syringes, 4
- g. Isuprel pre-filled syringes, 2
- h. Lidocaine pre-filled syringes, 2
- i. Lidocaine 500 cc pre-mixed bag, 1
- j. Sodium bicarbonate pre-filled syringes, 2
- k. Procainamide, 4
- l. Propanolol, 2
- m. Albuterol 2 mg/ml solution, 1

733.4 Pediatric Kits

733.41 Pediatric Kit

- a. TB syringe, 5
- b. 3 cc, 5 cc, & 10 cc syringe, 5 each
- c. Heplock
- d. 25 ga, 22 ga, & 18, ga needles, 4 each
- e. Y connector
- f. 5 in 1 connector
- g. Simms connector
- h. 2 oz & 4 oz syringe
- i. 5 Fr, 8 Fr, & 10 Fr feeding tube
- j. 60 cc irrigation tip syringe
- k. DeLee trap, 2
- l. 5 Fr, 8 Fr, & 10 Fr suction catheter,
- m. Tongue blades, 2
- n. Penlight flashlight
- o. U-Bag, infant & pediatric, 2 each
- p. Infant & child BP cuff
- q. Oral & rectal thermometer
- r. Oral airways, infant, pedi, med. Size
- s. 1" & 2" adhesive tape
- t. Kerlix roll
- u. Kling gauze roll
- v. 2" x 2" & 4" x 4" gauze, assorted, 8
- w. IV Buretrol
- x. Specimen cup
- y. Albumin 5 percent 250 cc

- z. D₅W 100 cc, 4
- aa. Pediatric EKG electrodes, 6
- bb. 24 ga, 22 ga & 20 ga IV catheters, 4 each
- cc. Tourniquet
- dd. Four way stop cock, 2
- ee. Microdrip IV tubing, 2
- ff. Wrist boards, 3
- gg. 21 ga, 23 ga, & 25 ga butterfly, 3 each
- hh. Alcohol preps, 20
- ii. IO needle (Jamshidi or Cook), 4
- jj. LR 1000 cc
- kk. NS 500 cc, 2
- ll. 50 cc NS, 2
- mm. 50 cc D₅W, 2

733.42 Pediatric Advanced Airway Kit

- a. 6 & 8 suction catheters, 4 each
- b. Yankauer, 2
- c. Suction connecting tubing
- d. 2.5 ET tube, uncuffed
- e. 3.0 ET tube, uncuffed, 2
- f. 3.5 ET tube, uncuffed, 2
- g. 4.0 ET tube, uncuffed, 2
- h. 5.0 ET tube, cuffed
- i. 5.5 ET tube, cuffed
- j. Stylet, 6 Fr
- k. Stylet, 14 Fr
- l. Gloves, 4
- m. Heimlich valve, 2
- n. Nasal cannula, pediatric
- o. Nasal cannula, infant
- p. Face mask, pediatric
- q. Non-rebreather mask
- r. Nebulizer
- s. O₂ connecting tubing
- t. Pediatric ambu with face mask
- u. Infant and pediatric mask
- v. Adhesive tape 2"
- w. O₂ X-Mas tree
- x. NS gavage, 5
- y. Infant & child sized oral airways
- z. Intubation handle, pediatric
- aa. Miller 0, pediatric blade
- bb. Miller 1, pediatric blade
- cc. Miller 3, pediatric blade
- dd. Mac 1, pediatric blade
- ee. K-Y Jelly
- ff. Batteries for pediatric intubation handle
- gg. Intubation blade bulb
- hh. Suture; silk
- ii. #11 blade, handle (scalpel)
- jj. Small curved clamp
- kk. 2 percent Lidocaine 30 cc, 2
- ll. Oximeter
- mm. Magill forceps

733.43 Pediatric Emergency Medication Kit

- a. Epinephrine 1 mg 1:1000, 4
- b. Dilantin 100 mg (50 mg/ml), 2
- c. Dextrose 25 percent
- d. Sodium bicarbonate pediatric, 3
- e. Lidocaine 2 percent 100 mg, 3
- f. Epinephrine 1:10,000, 5
- g. Narcan 0.4 mg/ml, 2
- h. Anectine
- i. Decadron 4 mg inj, 2
- j. Phenobarbital 130 mg/ml tubex, 2
- k. Solumedrol 40 mg/ml
- l. Normal saline 30 cc
- m. Albumin 5 percent 50 ml
- n. Albuterol 2 mg/ml solution
- o. Ipecac 30 ml, 2
- p. Activated charcoal 15 gms
- q. Lasix 10 mg/ml (10ml)
- r. Ceftriaxone (1 gm vial), 2
- s. Epinephrine 1:10,000 pre-filled syringes, 4
- t. Bretylol 500 mg/10 ml, 2
- u. Atropine 1 mg pre-filled syringes, 2
- v. Lidocaine 2 percent 100 mg pre-filled syringe
- w. Dopamine 200 mg/15ml, 2
- x. Dobutrex 250 mg/20 ml
- y. Bretylol
- z. Morphine sulfate
- aa. Demerol
- bb. Valium
- cc. Digoxin

733.5 Specialty Kits

733.51 OB Pack Kit

- a. Disposable OB kit
- b. Sterile scissors
- c. Sterile large Kelley clamps
- d. Doptone if available
- e. Crib pack
 - 1. Receiving blankets, 2
 - 2. Bath towel
 - 3. Pediatric stethoscope
 - 4. Stocking cap for baby
- f. Infant supplies
 - 1. DeLee suction catheters, 2
 - 2. Bulb syringe
 - 3. Cord clamps, 2
 - 4. Neonatal mask
 - 5. Newborn mask
 - 6. Suction catheter 8 Fr
 - 7. Suction catheter 10 Fr
 - 8. Plastic ziplock bags, 2
- g. Miscellaneous supplies
 - 1. Peripads, 2

2. Sterile 4" x 4" gauze
3. Chux, 10
4. Small plastic bags, 3
5. Large red isolation bag
6. Red Top Tube, 2
7. Purple Top Tube, 2
8. Saran wrap

733.52 Trauma Kit

- a. Examination gloves
- b. Blood pressure cuff
- c. Stethoscope
- d. Penlight
- e. Pen and pad
- f. Gauze pads, 4" x 4"
- g. Elastic rolls gauze
- h. Adhesive tape in various widths
- i. Trauma dressing
- j. Bandage trauma scissors
- k. Triangular bandages, 3
- l. Pocket mask with a valve and oxygen port
- m. Sterile, non-porous, non-adhesive dressing
- n. Oral airways in assorted sizes

733.53 Burn Kit

- a. Kerlix rolls 4", 6
- b. Sterile gloves in assorted sizes
- c. NS irrigation 1000 cc, 2
- d. Kerlix fluffs (box), 4
- e. Silvadine 1 percent 400 gms
- f. Burn sheet, 2
- g. Sterile sheets, 3
- h. Burn fluid replacement formula
- i. Hibiclens sponges, 4
- j. Xerofoam gauze 5" by 9", 2

733.6 Hazardous Materials

An air medical crew should approach a mission where hazardous materials contamination is known or suspected with crew and aircraft safety as the primary consideration. A program for responding to the patient (s) involved in a hazmat incident must be in place, with procedures clearly outlined and available for the pilot and medical crew prior to lift off. The following standards are recommended for air medical services.

- a. Flight crews should have annual hazardous materials training.
- b. A list of potential contaminants that would ground a flight due to the risk to the aircraft and crew should be available to the air medical service.

- c. Readily available reference materials available to the flight crew and communications center.
- d. Lift-off protocols addressing response to a hazardous material incident should be in place.
- e. A relationship with a local hazardous materials resource (such as a fire or safety officer) to ensure quick access to information as needed.
- f. Landing zones and flight routes should be selected to ensure that no contact with any elements of a hazardous materials incident occurs.

734 Clinics

734.1 Level I Community Clinics

Equipment listed below includes items that an EMT-trained or CHA-trained responder should be prepared to use.

734.11 General Equipment

- a. First responder kit

734.12 Ventilation and Airway Equipment

- a. Portable suction apparatus: wide-bore tubing, rigid pharyngeal curved suction tip (Yankauer)
- b. Portable oxygen equipment: variable flow regulator, humidifier (if resupply is not feasible, disposable oxygen)
- c. Oxygen administration equipment: adequate length tubing, masks (adult, child and infant sizes, transparent, non-rebreathing, Venturi and valveless, nasal prongs)
- d. Bag-valve-mask: hand-operated, self re-expanding bag (adult and infant sizes, equal to or greater than 0.85), O₂ port and oxygen reservoir (FiO₂, 0.9), clear mask (adult, child and infant sizes), valve (clear, easily cleanable or disposable, operable in cold weather)
- e. Pocket mask with O₂ port
- f. Demand valve type respirator (optional)
- g. Airways: nasopharyngeal, oropharyngeal (adult, child, and infant sizes), water soluble lubricant

734.13 Immobilization Devices

- a. Traction (2 adult, 1 or 2 pediatric): lower extremity, limb support slings, padded ankle hitch, padded pelvic support, traction strap
- b. Extremity immobilization devices: rigid support, appropriate material (cardboard,

- metal, vacuum, pneumatic, wood, plastic, etc.)
- c. Backboards (2 long, 2 short or equivalent, and scoop stretcher) hand holds for moving patient, short (extrication – head to pelvis length), long (transport – head to feet)
- d. Cervical collars (assorted sizes)
- e. Head immobilization devices (commercial or improvised)
- f. Strapping materials
- g. 2" tape

734.14 Bandages

- a. Burn sheets: two clean (not sterile)
- b. Triangle bandages with three safety pins each
- c. Dressings, large and small
- d. Roller (soft), 4" or larger
- e. Occlusive dressing, 3" x 8" or larger
- f. Adhesive tape, 2" or larger, assorted sizes
- g. Multi-trauma dressings

734.15 Pneumatic Anti-Shock Garment (PASG)

- a. Compartmentalized (legs and abdomen separate), stopcocks for each section, inflation pump, lower leg to lower rib cage

734.16 Obstetrical (separate sterile kit)

- a. Kit (towels, 4" x 4" dressing, umbilical tape type, clamps for cord, several pair of gloves, blanket, sanitary napkins, DeLee suction device with trap)
- b. Reflective heat blanket
- c. Extra receiving blanket, head cover, towels for baby
- d. Absorbent pads and draping materials

734.17 Miscellaneous

- a. Sphygmomanometers, large, adult and pediatric
- b. Stethoscope
- c. Heavy bandage scissors for cutting clothing, belts, boots, etc.
- d. Container for medical wastes
- e. Flashlight
- f. Irrigating solution
- g. Source of calories for treating diabetic patients
- h. Hypothermia & fever thermometers
- i. Hot packs
- j. Cold packs
- k. Activated charcoal in suspension
- l. Ipecac
- m. Kleenex

- n. Towels
- o. Washcloths
- p. Blankets (wool)
- q. Sheets
- r. Pillows
- s. Pillowcases
- t. Disposable emesis basins
- u. Bed pan
- v. Report forms
- w. First responder type trauma kit (see **Section 731.1**)

734.18 Disposables

- a. Emergency obstetrical kit
- b. Poison antidote kit
- c. 2" adhesive tape
- d. ½" adhesive tape
- e. 10" x 30" trauma dressings
- f. Sanitary pads
- g. Self adhering roller gauze
- h. 4" ace elastic bandage
- i. 4" x 4" gauze pads
- j. Saran Wrap
- k. Cold packs
- l. Hot packs with towels to wrap in

734.19 Pediatric Equipment & Supplies

- a. Oxygen tank with tubing, with humidified source for long transport times
- b. Oral airways, size 0-5
- c. Nasopharyngeal airways with lubricant, 12-30 F or equivalent sizes in mm
- d. Self-inflating bags with oxygen reservoir: 250, 500, 1000 cc bags
- e. Oxygen masks: infant, child, adult
- f. Nasal cannulas: infant, child, adult
- g. Masks for bag-valve mask: infant, child, adult sizes 1-3
- h. Stethoscope
- i. Blood pressure cuffs: infant, child, adult
- j. Portable suction unit
- k. Suction catheters (flexible and rigid), 6 to 14 F
- l. Back boards, long and short
- m. Towel rolls, blanket rolls or equivalent
- n. Rigid extrication collar for children over 2 years: infant, child, small, medium, adult
- o. Pediatric femur splint
- p. Standard burn pack; towels or gel burn sheet acceptable
- q. Thermal absorbent blanket
- r. Equipment sizing tape or equipment/age/weight chart
- s. Adhesive tape
- t. Alcohol sponges

- u. Arm boards, various sizes
- v. Providine-iodine prep pads
- w. Elastic bandages
- x. Extra batteries and bulbs for equipment needs
- y. Flashlight with extra bulb and batteries
- z. Gauze rolls
- aa. Gauze sponges
- bb. Protective eyewear, gloves and masks
- cc. Scissors
- dd. Tincture of benzoin
- ee. Tongue blades

734.2 Level II Community Centers

EMS equipment recommended for Level II Clinics includes basic life support equipment as recommended for the Level I Clinics plus the following equipment, depending upon the practitioner's level of training and experience, and standing orders approved by the supervising physician.

734.21 Trauma

- a. IV equipment (see **Section 732.21**)
- b. Cutdown tray
- c. Small suture sets
- d. IV warming device
- e. Foley catheter tray
- f. Chest tube tray
- g. Cricothyroidotomy tray

734.22 Cardiac & Respiratory

- a. Endotracheal tube/laryngoscope
- b. Cardiac monitor/defibrillator
- c. Emergency cardiac drugs (as recommended for ACLS)

734.23 Poisoning

- a. Gastric lavage tray
- b. Nasogastric tube
- c. Intermittent suction device

734.24 Obstetrics

- a. Infant warming blanket or radiant heater
- b. Emergency OB kit – hospital size

734.25 Psychiatric

- a. Patient restraints

734.26 Hypothermia

- a. Heated humidified oxygen

734.27 Pediatric Equipment & Medications

- a. Pediatric equipment and supplies for Level I Clinic (see **Section 734.19**).
- b. Transport monitor, battery-operated with 3 or 4 lead wires; defibrillator with 4.25 and 8 cm paddles (or paddle adapter) and pads capable to dial down to appropriate watt-sec for pediatric patients
- c. Monitor electrodes
- d. Equipment and drug dosage tape or age weight chart
- e. Chem strip for glucose and analyzer
- f. Laryngoscope handle with extra batteries and bulbs
- g. Laryngoscope blades, straight and/or curved: 0,1,2,3
- h. Stylettes, pediatric sizes
- i. Endotracheal tubes: uncuffed range 3.0-5.5; cuffed range 5.0-8.0
- j. Magill forceps (Rachevsky)
- k. Lubrication (water soluble)
- l. Nasogastric tube, sizes 5 to 18 F
- m. Intravenous catheter of choice, 14-22 g
- n. Intravenous needles of choice
- o. Tourniquet/rubber bands
- p. Three-way stopcock or adapter allowing administration of additional fluids or medications
- q. Syringes, various sizes
- r. Blood sample tubes
- s. Intravenous tubing, Burreitrol
- t. Tuberculin syringes
- u. Normal saline or lactated Ringer's
- v. D5W (diluent)
- w. Sodium chloride, bacteriostatic for injection
- x. Water, bacteriostatic, for injection
- y. Atropine sulfate, 0.1 mg/ml
- z. Sodium bicarbonate, 8.4% (1.0 MEq/ml)
- aa. Diazepam or analeptic of choice, 5 mg/ml
- bb. Epinephrine, 1:1,000 (1mg/ml)
- cc. Epinephrine, 1:10,000 (0.1 mg/ml)
- dd. Lidocaine hydrochloride (IV), 10 mg/ml
- ee. Naloxone hydrochloride (adult), 1.0 mg/ml
- ff. Pain medication per medical control
- gg. Inhalant beta adrenergic agent of choice
- hh. Activated charcoal

734.3 Hazardous Materials Decontamination

Whenever possible, preliminary decontamination should occur outside the clinic. The following emergency supplies should be stored in an area near the emergency care area and checked periodically (e.g., quarterly):

- a. **Written procedures for handling chemically-contaminated victims.**
- b. **Protective clothing for staff:**
 - 1. **For most circumstances:** Disposable gowns, surgical masks, plain latex gloves (enough for double gloving), shoe covers, splash goggles (at least two pair), aprons, caps. At least some of the gowns, aprons, and shoe covers should be impervious to water.
 - 2. **For heavy chemical or corrosive contamination:** At least 2 Tyvek or Saranex suits and 2 pair unmilled nitrile gloves (be sure to check with Poison Control or Hazmat team to see if they are compatible with the particular hazardous substance involved).

Note: Respiratory protective gear is not generally available and, in addition, should not be used unless it is properly maintained and staff have been properly fitted and trained in its selection and use. Therefore, if inhalation exposure is a risk, decontamination should be done **outside**.

- c. **Decontamination supplies:**
 - 1. Inflatable kiddie pool (large) with foot operated air pump (or other means of collecting contaminated water)
 - 2. Large plastic tarp to place under pool forming an outer containment area
 - 3. 55 gallon plastic trash cans to hold water
 - 4. Mild dishwashing detergent or soap in squeeze bottle
 - 5. Sponges
 - 6. Absorbent pads for washing
 - 7. Nail brush
 - 8. Tent or curtain for privacy
 - 9. Exterior wall water outlet/shower nozzle hooked up to lukewarm (or cold) water supply
 - 10. Metal gurney or morgue table for non-ambulatory patients
 - 11. Plastic bags for double-bagging contaminated clothing (preferably clear).
 - 12. Diking or absorbent material (dikes can be made by taping the edges of a large plastic tarp or sheets or plastic draped over a ladder turned on its side or rope strung horizontally; absorbent materials such as kitty litter, pillows, diapers, or other similar material may be useful to absorb spills)

- 13. Saline and IV tubing for eye irrigation set-up (special decontamination solutions and neutralizing agents are not recommended except in specific rare circumstances e.g., hydrofluoric acid)
- 14. Water (and perhaps soap) are the recommended means of decontaminating victims; extra care needs to be given to victims contaminated with reactive substances; consult your poison control center.
- 15. For a dedicated decontamination room, separate exhaust ventilation, adequate ventilation (at least 6 changes per hour), plastic sheeting to cover floor, 2" tape to secure plastic, means of containing contaminated water, and respiratory protective gear for staff who may be in an enclosed space with volatile hazardous materials (any employee required to use a respirator must be medically cleared, fitted and trained)
- d. **Other Supplies:**
 - 1. Wall suction with disposable collection bag to hook up to gastric tube to remove and isolate toxic vomitus
 - 2. Extra medical supplies or equipment which could be taken out of service temporarily if contaminated (including crash cart with ambu bags, defibrillator, EKG monitoring equipment, IV stands, etc.)
 - 3. Inexpensive medical equipment which could be disposed of if contaminated (including stethoscope, blood pressure cuff, etc.)
 - 4. Tape and rope for marking of perimeters
 - 5. Plastic sheeting (4 mil) for covering floor or covering entrance to, and floor of, decontamination area for materials with high potential for secondary contamination
 - 6. 2" tape for securing plastic
 - 7. Cotton-tipped applicators and stoppered glass containers for swabs of hazardous materials for laboratory analysis, or evidence for later prosecution of the party responsible for the hazmat spill

735 Hospitals

735.1 Hazardous Materials Decontamination

Whenever possible, preliminary decontamination should occur outside the hospital. The following emergency supplies should be stored in an area near the emergency department rear entrance and checked periodically (e.g., quarterly):

- a. **Written procedures for handling chemically-contaminated victims.**
- b. **Protective clothing for staff:**
 1. For most circumstances: Disposable gowns, surgical masks, plain latex gloves (enough for double gloving), shoe covers, splash goggles (at least two pair), aprons, caps. At least some of the gowns, aprons, and shoe covers should be impervious to water.
 2. **For heavy chemical or corrosive contamination:** At least 2 Tyvek or Saranex suits and 2 pair unmilled nitrile gloves (be sure to check with Poison Control or Hazmat team to see if they are compatible with the particular hazardous substance involved).

Note: Respiratory protective gear is not generally available and, in addition, should not be used unless it is properly maintained and staff have been properly fitted and trained in its selection and use. Therefore, if inhalation exposure is a risk, decontamination should be done **outside**.

- c. **Decontamination supplies:**
 1. Inflatable kiddie pool (large) with foot operated air pump (or other means of collecting contaminated water)
 2. Large plastic tarp to place under pool forming an outer containment area
 3. 55 gallon plastic trash cans to hold water
 4. Mild dishwashing detergent or soap in squeeze bottle
 5. Sponges
 6. Absorbent pads for washing
 7. Nail brush
 8. Tent or curtain for privacy
 9. Exterior wall water outlet/shower nozzle hooked up to lukewarm (or cold) water supply
 10. Metal gurney or morgue table for non-ambulatory patients
 11. Plastic bags for double-bagging contaminated clothing (preferably clear).

12. Diking or absorbent material (dikes can be made by taping the edges of a large plastic tarp or sheets or plastic draped over a ladder turned on its side or rope strung horizontally; absorbent materials such as kitty litter, pillows, diapers, or other similar material may be useful to absorb spills)
13. Saline and IV tubing for eye irrigation set-up (special decontamination solutions and neutralizing agents are not recommended except in specific rare circumstances e.g., hydrofluoric acid)
14. Water (and perhaps soap) are the recommended means of decontaminating victims; extra care needs to be given to victims contaminated with reactive substances; consult your poison control center.
15. For a dedicated decontamination room, separate exhaust ventilation, adequate ventilation (at least 6 changes per hour), plastic sheeting to cover floor, 2" tape to secure plastic, means of containing contaminated water, and respiratory protective gear for staff who may be in an enclosed space with volatile hazardous materials (any employee required to use a respirator must be medically cleared, fitted and trained)
- d. **Other Supplies:**
 1. Wall suction with disposable collection bag to hook up to gastric tube to remove and isolate toxic vomitus
 2. Extra medical supplies or equipment which could be taken out of service temporarily if contaminated (including crash cart with ambu bags, defibrillator, EKG monitoring equipment, IV stands, etc.)
 3. Inexpensive medical equipment which could be disposed of if contaminated (including stethoscope, blood pressure cuff, etc.)
 4. Tape and rope for marking of perimeters
 5. Plastic sheeting (4 mil) for covering floor or covering entrance to, and floor of, decontamination area for materials with high potential for secondary contamination
 6. 2" tape for securing plastic
 7. Cotton-tipped applicators and stoppered glass containers for swabs of hazardous materials for laboratory analysis, or

evidence for later prosecution of the party responsible for the hazmat spill

736 Communications

736.1 Basic Communications

736.11 Ambulance Services

a. Portable Radios

One for physician or PA
One for Chief/Rescue Squad Captain
One for each on duty responder
One for First Responder in remote areas
One for backup

b. Base Stations

Hospital/clinic
Dispatch

c. Pagers

One-way voice pagers, one per responder

d. Mobile

Ambulance

736.12 Village Clinics

- a. Phone
- b. HF-SSB
- c. CB

736.13 Air Ambulance

- a. Radio with ground medical channels (and marine frequencies in coastal Alaska).

736.14 Optional

- a. Cellular phone
- b. Fax

737 Pre-Stocked Disaster Supplies

737.1 Level I Communities

- a. Backboard, 2
- b. Wool blanket, 4
- c. Cervical collar, no neck and regular, one each
- d. 4" x 4" gauze, 12 per pkg., eight pkg.
- e. Butterfly bandage, 25
- f. Antimicrobial towel, 10
- g. One inch tape, four rolls
- h. Two inch tape, two rolls
- i. Aluminum blanket, two
- j. Triangular bandage, eight
- k. Multi-trauma bandage, five
- l. Para-med type scissors, one
- m. Pencil/pen/write-in-rain notebook, two
- n. Triage tags, one pkg.

- o. Water, 1000 cc
- p. Cardboard splint, 18 inch, two
- q. Cardboard splint, 24 inch, two
- r. Sam Splint, three
- s. Flex bandage/dressing (Kerlix), 6 inch, 24
- t. Burn sheet, two
- u. Yellow disposable blanket, two
- v. Stethoscope, one
- w. Blood pressure cuff, one
- x. Assorted latex gloves
- y. Hypothermia thermometer, one

737.2 Level II, III, IV & V Communities

One of the following Trauma/Command Package of supplies is suitable for treating 30 to 50 injured persons and is portable and inexpensive.

737.21 EMS Trauma Package

- a. Board splints (IV arm boards are disposable and already padded), 50
- b. Cravats, cut and rolled from large roll of muslin, 100
- c. Bleeding control packs, six 4" x 4", and three 4" Klings in a zip-lock sandwich bag, 50
- d. BP cuffs/stethoscope, packed together for one rescuer with several patients at secondary triage site, 10
- e. Oral pharyngeal airway kits, three
- f. ABD pads, 8" x 10", sterile, 100
- g. Bandage scissors, ten
- h. Extra cardboard port-a-boards, optional

737.22 Command Package

- a. Marker flags, 100
- b. Letter-sized envelopes, 100
- c. Large bulldog clips, two
- d. Small bulldog clips, six
- e. Resource manual
- f. Triage plan
- g. Manila envelopes for patient's effects, 50
- h. Lined paper pads, 11" x 14", two
- i. Receipt books, two
- j. Chalk, box
- k. Hazardous material books, three
- l. Stapler
- m. Staples, box
- n. Rubber bands, two boxes
- o. Zip-lock bags, 12" x 12", box
- p. Twine, roll
- q. Crayon markers, package
- r. Clipboards, 11" x 14"
- s. Graph paper, 20" x 20" sheet
- t. Pencils and pens, 20 assorted

- u. Colored sector tape (red, yellow, green) patient sorting areas, one roll each color
- v. Area phone directory, white and yellow pages
- w. Triage tags, 100
- x. Binoculars, pair
- y. Vests, seven (one command officer, one triage officer, three triage team, one safety officer, one transportation officer)

737.3 Level III, IV & V Airports

The supplies listed below will accommodate approximately 100 victims. Ideally, for item z. you should have as many as 25 oxygen set-ups available. However, this may be unrealistic both for cost and storage. The responding ambulances will have additional oxygen.

- a. Gauge rolls (Kling, Kerlix), 100
- b. Dressing pads (ABD, combine, surgipad, field dressing), 100
- c. 4x4 gauze, 100
- d. Burn sheets, 25
- e. Triangle bandages (cravat), 50
- f. Elastic bandages, assorted sizes, 30
- g. Cardboard splints, arm, 40
- h. Cardboard splints, leg, 40
- i. Disposable gloves, boxes (50-100 pairs), 10
- j. Eye pad, 50
- k. Vaseline gauze, 6
- l. Tape, adhesive (1", 2"), 20 each
- m. Tape, micropore (1"), 20
- n. Bandage scissors, 10
- o. Shears, 6
- p. Hemostats, 6
- q. Tweezer forceps, 2
- r. Safety pins, 50
- s. Oral airway, infant, 2
- t. Oral airway, small 8
- u. Oral airway, medium & large, 20 each
- v. Pocket masks (blob type, with one way valve), 20
- w. Bag valve masks (ambu bag), 10
- x. Non-rebreather O₂ masks, 20
- y. Nasal cannulas, 20
- z. Oxygen bottles, regulators, 10
- aa. V-Vac or similar hand suction devices, 15
- bb. Laryngoscope: set (handle & blades), 2
- cc. Endotracheal tubes (sizes 6.5, 8.0), 4 each
- dd. Endotracheal tubes (sizes 7.0, 7.5), 10 each
- ee. Endotracheal tubes (sizes 2.0, 3.0, 4.0, 5.0 uncuffed), 1 each
- ff. Stylets, 14 Fr, 2
- gg. Syringes, 10 cc, 20
- hh. KY jelly, tubes, 4
- ii. Suction catheters, 10
- jj. 60 cc catheter tip syringes, 10

- kk. Eye wash solution, bottle, 4
- ll. Bulb syringes, 2
- mm. IV start kits (tourniquet, ETOH swabs, IV catheters (16, 18 g) tape), 20
- nn. IV catheters (extra); sizes 14, 16, 18, 20), 5 each
- oo. IV tubing, macro-drip, 50
- pp. IV tubing, micro-drip, 10
- qq. IV solution, LR or NS, 1000 cc, 50
- rr. D₅W, 500 cc, 10
- ss. Flashlights, 20
- tt. Backboards, 60
- uu. Cardboard backboard head stabilizers, 60
- vv. Blankets, wool, 100
- ww. BP cuffs, 10
- xx. Stethoscopes, 20
- yy. Heat packs, cold packs, 15 each

738 Remote Areas

738.1 High-Risk Occupation Sites

This is a list of on-site first aid equipment recommended for those industrial sites with more than 25 persons in either a high risk operation or in a location more than 30 minutes from the nearest ambulance service. The minimum level of training recommended for these items is ETT.

738.11 General Equipment

The following equipment should be available in the First Aid Room. *Italicized items* should be available at each remote working site also.

- a. Fever thermometer
- b. Disposable thermometers, package of 20
- c. Low reading (hypothermia) thermometer
- d. *Blood pressure cuff, adult, large, pediatric*
- e. *Stethoscope*
- f. Penlight
- g. Waterproof flashlight
- h. *Wool blankets, two or more*
- i. Pillows, two
- j. Space blanket
- k. Bed sheets, clean, two
- l. Ring cutter
- m. Bandaging scissors, pair

738.12 Resuscitation & Shock Management

The following equipment should be available in the First Aid Room. *Italicized items* should be available at each remote working site also.

Usage of any of this equipment requires trained responders.

- a. Electric suction device with a rechargeable battery, or mechanical equivalent, such as *Vivac*
- b. *Oral airways*, a set
- c. *Bag mask, adult*
- d. *Bag mask, child*
- e. *Oxygen system*
- f. *Pneumatic antishock garment (PASG), adult*

738.13 Fractures/Splinting

The following equipment should be available in the First Aid Room. *Italicized items* should be available at each remote working site also.

- a. *Traction splint*
- b. *Full arm air splint*
- c. *Full leg air splint*
- d. *Rigid cervical collars, set (small, medium, large)*
- e. *Standard backboard w/straps*
- f. *Fiberglass basket/stretcher*
- g. *Stretcher*
- h. *Bridle harness for hoisting*

738.14 Disposables

The following equipment should be available in the First Aid Room. *Italicized items* should be available at each remote working site also.

- a. *Emergency OB kit*
- b. *Activated charcoal in suspension*
- c. *Syrup of ipecac*
- d. *Adhesive tape, ½", two rolls*
- e. *Adhesive tape, 1", two rolls*
- f. *Trauma dressings, 10" x 30", two*
- g. *Sanitary pads, package of 12*
- h. *Kerlix, 4", package of 12*
- i. *Ace elastic bandages, 4", six, two*
- j. *Triangular bandages, six, two*
- k. *Gauze pads, 4" x 4", package*
- l. *Saran wrap, package*
- m. *Cold packs, package of four*
- n. *Hot packs, package of four*
- o. *Eye wash – Normal Saline*

738.15 Containers

The following equipment should be available in the First Aid Room. *Italicized items* should be available at each remote working site also.

- a. *First responder kit*

710 Prehospital Care Record Forms

This section contains a list of essential uniform prehospital EMS data elements, which should be included in a prehospital form, as well as sample patient care forms.

741 Essential Uniform Prehospital EMS Data Elements

See page

742 Alaska Prehospital Patient Report Form

See page

743 Alaska Medevac Transportation Form

See page

**Table 740-1: Essential Uniform
Prehospital EMS Data Elements**

#	NAME	DEFINITION
1	Incident Address	Address where patient was found, or address to which unit responded
2	Incident City	City or township where patient was found
3	Incident EMS Region	EMS Region where patient was found
4	Incident State	State, territory, province or district where patient was found
5	Location Type	Type of location of incident
6	Date Incident Reported	Date call is first received by PSAP or other designated entity
7	Time Incident Reported	Time call is first received by PSAP or other designated entity
8	Time Dispatch Notified	Time of first connection with EMS dispatch
9	Time Unit Notified	Time response unit is notified by EMS dispatch
10	Time Unit Responding	Time response unit begins physical motion
11	Time Arrival at Scene	Time EMS unit stops physical motion at scene (last place unit or vehicle stops prior to assessing patient)
12	Time Unit Left Scene	Time response unit began physical motion from scene
13	Time Arrival at Destination	Time when patient arrives at destination or transfer point
14	Time Back in Service	Time response unit back in service available for response
15	Lights and Sirens to Scene	The use of lights and sirens to scene
16	Service Type	Type of service requested
17	Incident Number	Unique number for each incident reported to dispatch
18	Response Number	Unique number for each individual response by a response unit to an incident
19	Patient Care Record Number	Unique number for each patient care record (PCR)
20	Agency Unity Number	Number that identifies the agency and unit responding to an incident
21	Vehicle Type	Type of vehicle which responded to incident
22	Crew Member One	Personnel certification/license number for first crew member
23	Crew Member Two	Personnel certification/license number for second crew member
24	Crew Member One Type	Personnel certification/license level of crew member
25	Crew Member Two Type	Personnel certification/license level of crew member
26	Patient Name	Patient name
27	Zip Code of Residence	Zip code of patient's residence

**Table 701-1: Essential Uniform
Prehospital EMS Data Elements (continued)**

#	NAME	DEFINITION
28	Date of Birth	Patient's date of birth
29	Gender	Gender of patient
30	Race/Ethnicity	Patient's racial and ethnic origin
31	Destination/Transferred to	Reason a transport destination was selected
32	Lights and/or Sirens Used from Scene	Use of lights and/or sirens from the scene
33	Destination Determination	Reason a transport destination was selected
34	Incident/Patient Disposition	End result of EMS response
35	Cause of injury	External cause of injury
36	Provider Impression	Provider's clinical impression which led to the management given to the patient
37	Pre-Existing Condition	Pre-existing medical conditions known to the provider
38	Signs and Symptoms Present	Signs and symptoms reported to or observed by provider
39	Injury Description	Clinical description of injury type and body site
40	Safety Equipment	Safety equipment in use by patient at time of injury
41	Alcohol/Drug Use	Suspected alcohol or drug use by patient
42	Pulse Rate	Patients palpated or auscultated pulse rate expressed in number per minute
43	Respiratory Rate	Patients respiratory rate expressed in number per minute
44	Systolic Blood Pressure	Patients systolic blood pressure
45	Glasgow Eye Opening Component	Patients eye opening component of the Glasgow coma scale
46	Glasgow Verbal Component	Patients verbal component of the Glasgow coma scale
47	Glasgow Motor Component	Patients motor component of the Glasgow coma scale
48	Procedure or Treatment Name	Identification of procedure attempted or performed on patient
49	Medication Name	Medication name

Insert Alaska Pre-Hospital Patient Report

Insert Alaska Medevac Transport Form

Insert Alaska Critical Care Transport Form

Insert Alaska Medevac Transport Form Burn Chart

Insert Air Carrier Information, Release of Information/Assignment of Claim form

750 Past Priorities

751 Fiscal Year 1996

At the September 1994 ACEMS Meeting, there was consensus to adopt the same four priorities from FY 95 for the FY 96 Grant Application Requests for Proposals (see **Section 753**).

752 Fiscal Year 1995

At the September 1993 ACEMS Meeting, there was consensus to adopt the same four priorities from FY 94 for the Fiscal Year 95 Grant Application Requests for Proposals (see **Section 753**).

753 Fiscal Year 1994

At the September 1992 ACEMS, there was consensus on four ACEMS priorities for the Fiscal Year 94 Grant Application Requests for Proposals. The priority areas included:

- 1. Maintenance of current programs and services**
- 2. Training for trauma and increased training and quality certification and retention of EMS instructors**
- 3. Mass casualty response planning and training**
- 4. Injury prevention**

754 Fiscal Year 1993

At the September 1991 ACEMS Meeting, there was consensus on three ACEMS priorities for the Fiscal Year 93 Grant Application Requests for Proposals. The priority areas included:

- 1. Program Maintenance/Quality Improvement**
- 2. Mini-Grants**
- 3. Enhanced Financial Support by the Public**

SECTION 800 COMMUNITY INDEX

OVERVIEW

This section lists communities that were listed either in the *1990 United States Census* as an Alaska place or identified as a place by the appropriate regional director or sub-area coordinator. In a few cases, regional directors or sub-area coordinators did not believe that places identified by the *Census* were communities; these places were omitted. This section is organized into three sub-sections:

- ◆ **Section 810 explains the index's Organization.**
- ◆ **Section 820 shows the key to the symbols and acronyms used in the index.**
- ◆ **Section 830 contains the actual Community Listings.**

810 Organization

This index provides six kinds of information about a community.

1. What **EMS Region** and **Sub-Area** a community is located in.
2. What **level of care** a specific community is classified into.
3. What type of access a community has, including **road**, **water**, and **air**, and whether or not it is a **satellite** to a higher level community.
4. What **seasonal impacts** characterize a community.
5. What type of **EMS access and providers** are available in a community – 911, paid or volunteer EMS service, health aide, and military.
6. What **color-coded section** of *Alaska EMS Goals* to examine and review recommendations appropriate for a community.

820 Key

821 Region/Sub-Area Abbreviations

See **Section 140** for more information.

ACI	Anchorage & Cook Inlet Sub-Area
AI	Annette Island Sub-Area
APE	Aleutian/Pribilof Sub-Area – East
APW	Aleutian/Pribilof Sub-Area – West
BB	Bristol Bay Sub-Area
CR	Copper River Sub-Area
FNSB	Fairbanks North Star Borough Sub-Area
I	Interior Region
KIB	Kodiak Island Borough Sub-Area
KPB	Kenai Peninsula Borough Sub-Area
MSB	Matanuska-Susitna Borough Sub-Area
NAB	Northwest Arctic Borough Region
NS	Norton Sound Region
NSB	North Slope Borough Region
PWS	Prince William Sound Region
S	Southern Region
SE	Southeast Region
YK	Yukon-Kuskokwim Region

822 EMS Community Levels of Care

(See **Table 820-1** and **Section 410** for more information.)

I-IH	Level I Isolated
I-HI	Level I Highway
II-IS	Level II Isolated
II-HI	Level II Highway
III	Level III
IV	Level IV
V	Level V
O-VS	Other – Very Small Community
O-HR	Other – High Risk Work Site

823 Access

(See **Section 415** for more information. Each page of the index contains a key for the symbols used to designate access.)

highway: linked to the Alaska Highway network year round.
summer highway: linked to the Alaska Highway network during the summer only.
limited highway: outlying roads but no linkage to the Alaska Highway network.

coastal: ocean access without linkage to the Alaska marine highway system.

river: along a river used as a primary transportation route (boating, winter ice road).

lake: along a lake used as a primary transportation route (boating, winter ice road).

airstrip: authorized landing area with small plane capacity only.

airport: authorized landing area with regular scheduled commercial air service.

floatplane: landing area available for floatplanes (seaplanes).

seaplane port: designated landing area for floatplanes (seaplanes).

helicopter: landing area available for helicopters.

heliport: designated landing area for helicopters.

satellite: road access to a higher level community within 30 minutes under normal conditions.

824 Seasonal Impacts

(See **Sections 415** and **514**. Each page of the index contains a key for the symbols used to designate seasonal impacts.)

825 Providers

(See **Section 415** for more information.)

- 911** Access to EMS providers through 911 telephone number
- V** Volunteer EMS Services (most providers are volunteers)
- P** Paid EMS Service (most providers are paid)
- H** Health Aide
- M** Military

826 Color Coding

CREAM	Level I Isolated
LEMON	Level I Highway
AQUA	Level II Isolated
ORCHID	Level II Highway
MINT	Level III
ROSE	Level IV
SALMON	Level V
GRAY	Other

827 Reading the Index

The index reads: *Adak Station is located in the ALEUTIAN PRIBILOF SUB-AREA of SOUTHERN REGION. It is a LEVEL II ISOLATED community. It is a COASTAL community with an AIRPORT. The community has NO SEASONAL CHANGES. EMS PROVIDERS in the community are MILITARY.*

Refer to the AQUA portion of Alaska EMS Goals to review recommendations appropriate for this community.

Table 820-1
EMS Community Levels-of-Care

COMMUNITY TYPE	POPULATION	EMS	GENERAL ACCESS
LEVEL I			
Isolated Village	Usually 50 - 1,000 in immediate community	Community clinic with a CHA or EMT	Limited air or marine highway access to a Level III or higher community; road access exceeds 60 miles
Highway Village	Usually 50 - 1,000 in immediate community	Community clinic with a CHA or EMT	Limited air or marine highway access to a Level III or higher community; year-round, 60 minute or less road access
LEVEL II			
Isolated Sub-Regional Center or Town	Usually 500 - 3,000 + in immediate community	Community clinic with PA, NP, MD or DO; health care services provided by public or private sector	Marine highway or daily air access to closest Level III or higher community; air service to Level I communities in area
Highway Sub-Regional Center or Town	Usually 500 - 3,000 + in immediate community	Community clinic with a PA, NP, MD or DO; health care services provided by public or private sector	Marine highway or daily air access to closest Level III or higher community; year-round 60 minute or less road access
LEVEL III			
Large Town or Regional Center	Usually 2,000 - 10,000 + in immediate community, providing services to a regional population	Community hospital and physicians; health care service agencies include both public and private	Daily airline service to Level III, IV & V communities; air service to Level I & II communities in area; road or marine highway access all year
LEVEL IV			
Small City	Usually 10,000 - 100,000 in immediate community, providing services to a larger regional population	Hospitals with a 24 hour staffed ED and full continuum of care; multiple providers of health care and other services including both public and private programs	Daily airline service to Level II, III, IV & V communities; road or marine highway access all year
LEVEL V			
Urban Center	Usually 100,000 + in immediate community, providing services to a statewide population	Some specialized medical and rehabilitation services for low incidence problems	Daily airline service to Level II, III, IV & V communities; road or marine highway access all year
OTHER AREAS			
Very Small Communities	25 - 150 in immediate community	Designated area for equipment and patient care with a CHA, ETT or EMT	Limited road, air or marine highway access to a Level III or higher community
Major Highways	Variable	Level II ambulance service every 100 miles & first responder service every 50 miles	Year-round, 60 minute or less ground transportation or air access to a Level III or higher community
Marine Highways	Variable	Safety officer with ETT or EMT training	Helicopter or fixed wing access
At-Risk Sites			
Schools	Variable	Safety coordinator & at least two ETTs	Air, marine & ground transportation access
High-Risk Work Sites: Remote	Variable	ETT or EMT for every 25 employees	More than one hour from a medical service
High-Risk Work Sites: Nearby	Variable	ETT or EMT for every 50 employees	One hour or less from a medical service

Section 830 Community Listings
